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The Drive Toward SSD

Solid-State Drives Promise Performance, But Questions Remain

by Christian Perry

• • •

IN THE DATA CENTER storage arena, many innovations in recent years have targeted storage management, but a new type of drive is set to usher in changes that could impact storage across the board. The SSD, or solid-state drive, is building momentum within the IT space, with manufacturers increasingly offering it as an option alongside conventional hard drives.

Generally using either NAND flash nonvolatile memory or DRAM volatile memory, SSDs deliver a wealth of benefits over drives that employ older technology. "Greater reliability in SSDs means longer drive life with fewer replacements," says Terrence Groth, product marketing manager for SSD products at Lexar Media's Crucial division (www.crucial.com). "With no moving parts, the power/cost savings ratio can be significant as you begin adding multiple drives per server to your data center. With SSD technology, information
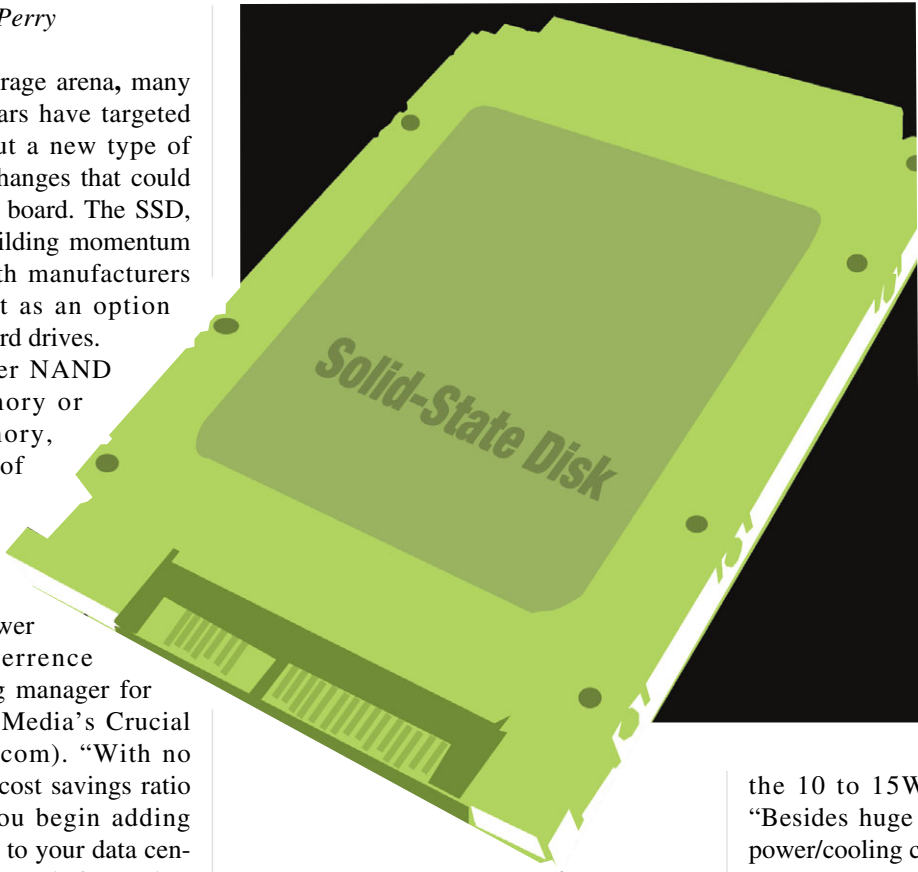
flow is faster with low latency and high read/write speeds."

Indeed, SSDs feature extremely quick startup times, fast random access, excellent mechanical reliability, and no noise, thanks to the lack of moving parts. However, as costs remain high and other questions surround the technology, integration into data centers isn't exactly occurring at a breakneck pace.

Performance Aplenty

Currently and in the near future, SSDs could impact specific data center realms—particularly those demanding plenty of performance. Brian Beard, SSD market team leader for Samsung Semiconductor (www.samsung.com), says these realms will include Web servers and OLTP (online transaction processing), which currently use 15,000rpm hard disk drives that are "short stroked," or use only the outmost diameter of the drive to optimize performance.

For these performance-focused applications, Beard says a single SSD could replace several short-stroked HDDs. Further, he notes that SSDs use only 0.5 watts of power, far less than the 10 to 15W used by server HDDS. "Besides huge gains in performance and power/cooling costs, ultimately SSDs could

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Software License Compliance

Stay On The Right Side Of The Law

by Sixto Ortiz Jr.

• • •

WHEN A BUSINESS PURCHASES a software application, it is only purchasing the right to use that software under the terms spelled out in the licensing agreement that accompanies every software application bought and sold today. The software still belongs to the company that created the product, and the licensing agreement spells out the terms of use for businesses or individuals purchasing the application.

But a new study by King Research reveals most respondents do not feel confident about their compliance with software licensing agreements.

In fact, many survey respondents were not confident they could pass a software compliance audit. In today's budget-constrained times, administrators may put

software license compliance issues on the back burner, a potentially costly decision if an audit reveals a lack of compliance.

Software License Compliance Basics

So what should data center administrators and CIOs at small to medium-sized enterprises know about software license compliance? For starters, decision makers should understand that the penalties for noncompliance can be quite severe. Rob Meinhardt, CEO and co-founder of KACE (www.kace.com), says administrators may be held personally liable, meaning fines,

confiscated assets, or even jail time, if they knowingly have unlicensed software on their network.

Just because a business is small doesn't mean software licensing issues are not a concern. Andi Mann, research director at Enterprise Management Associates (aka EMA; www.enterprisemanagement.com), says SMEs need to know as much as large enterprises because the challenges are fundamentally the same. "They are facing many or all of the same threats—compliance, fines, punitive license costs, security

> **Administrators may be held personally liable, meaning fines, confiscated assets, or even jail time, if they knowingly have unlicensed software on their network.**

In This ISSUE

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Telecommuting makes perfect sense for many hundreds of the various jobs within today's organizations. But should the IT staff of these organizations telework, as well?

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■ **3PAR** announced 3PAR Thin Copy Desktop for VMware VDI (Virtual Desktop Infrastructure), an integrated virtual desktop provisioning and management utility. ■ **Asempra Technologies** unveiled the Asempra Business Continuity Server 2.7. ■ **Breach Security** released WebDefend version 3.4, the latest version of its Web security appliance. ■ **Fujitsu** launched the fi-6670 and fi-6770 color duplex scanners. ■ **HP** introduced the latest version of the HP Project and Portfolio Management Center. ■ **Quantum** announced enhancements to its Vision global management and reporting software and to its DXi7500 enterprise disk backup system. ■ **SteelEye** announced general availability of SteelEye Protection Suite, a comprehensive disaster protection solution for virtual machines running on Citrix XenServer. ■ **Sunbelt Software** released the VIPRE Antivirus + Antispyware security solution. ■ The StoreJet 25P is a portable 2.5-inch hard drive with a USB 2.0 connector from **Transcend Information**.

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Cost-Effective Network Monitoring

Effective Troubleshooting With Paessler's PRTG Network Monitor V7

Paessler's PRTG Network Monitor V7 offers an easy-to-use interface for more streamlined management.

ADMINISTRATORS ARE under constant and increasing pressure to troubleshoot and prevent network problems faster, and they need a streamlined solution with an interface that is simple to use.

Paessler's PRTG Network Monitor version 7 is designed to offer admins a cost-effective, easy-to-use method of ensuring network availability that reduces costs and saves time. It's designed to prevent outages, optimize connection performance, and control service-level agreements.

The software offers enhancements to automate network monitoring and reporting tasks, as well as the ability to leverage best practices for optimal configuration and analysis. Features include Auto-Pilot, a feature that constantly scans network segments for new devices and automatically determines device types and configures appropriate sensors for them, and preconfigured device templates that offer alarm and warning limits for standard devices. PRTG 7 also features extended support for more than 30 sensor types to monitor service, analyze network traffic, and track user behavior on the network.

The intended benefits include being able to identify out-of-the-ordinary traffic or usage patterns to quickly learn about the issues and act to resolve them.

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ON TOP OF scalability, companies need storage with high availability and high performance. ONStor's Cougar 6000 series of NAS gateways is designed to meet the needs of large enterprises and data-intensive environments, yet make it affordable for mid-range companies, as well.

The Cougar 6000 series is designed to deliver growth flexibility and the ability to meet changing storage needs without disrupting business as usual with ONStor's Ever-Scale redundant modular architecture, heterogeneous storage virtualization, and advanced multicore storage network processors.

The "cluster-in-a-box" design of the Cougar 6000 series is designed to enable companies to meet service-level agreements with a device that leaves a small footprint and saves energy. Yet the open data center-class networked storage appliance can scale up to 4PB (petabytes) and 400K+ SpecSFS Ops cluster.

The Cougar 6000 series can help reduce costs by allowing customers to leverage the storage they presently have, which bulks up their storage capacity without jettisoning their previous data center investment.

The Cougar 6000 series includes centrally managed and provisioned open storage, a compact and energy-efficient solid-state design, and 64-bit multicore pipelined network processor architecture. For high availability, the NAS gateways offer an 8-node cluster, 32 virtual servers per cluster, eight GigE ports, eight FC ports per filer, and other advanced features such as n-way clustering and pooled storage management.

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Nexsan's DATABeast is a high-capacity, high-density disk storage solution designed for the enterprise but priced for small to midsized enterprises. DATABeast is a green storage solution that provides full service management features including thin provisioning, storage pooling, tiering, virtualization, mirroring, snapshots, and replication. The system stores up to 336TB in 42U and easily and economically scales to accommodate up to 4PB in a single, easy-to-manage system.

To address today's spiraling energy costs, DATABeast features Nexsan's AutoMAID (Automatic Massive Array of Idle Disks) technology, which reduces energy use without compromising application performance. AutoMAID is a next generation of MAID technology that lets users select multiple levels of energy efficiency based on application and performance need vs. the old on/off approach.

DATABeast fully integrates and consolidates SATA and SAS disk-based storage according to customer preferences. The product is ideally suited for environments with large and growing amounts of digital media, such as the healthcare, scientific, and financial services.

Nexsan is a leader in cost correct disk storage with an "all-in-one" system price that includes all software, management tools, and features, including AutoMAID at no extra cost. To expand, users buy and plug in additional drives.

Other features of the Nexsan DATABeast include:
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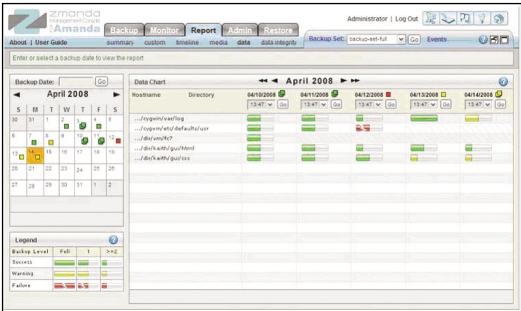
Easy-to-understand reports help administrators track events.

AS THE NEED FOR available data increases, budgetary and staff costs can prohibit some SMEs from acquiring or effectively managing backup and recovery products. They need backup and recovery apps that are easy and quick to install, are simple to manage, and have all the functionality an enterprise needs, all at a low cost. Amanda Enterprise is Zmanda's effort to provide a solution to this problem.

Amanda Enterprise 2.6.4 is the latest iteration of the software, an open-source product that uses only standard formats and tools instead of proprietary products. Backups can be made to a single Linux or Solaris master backup system from multiple systems. Supported platforms include Windows, Linux, Solaris, and Mac OS X.

Other new features of Amanda Enterprise include online backup support for Microsoft SQL Server, Microsoft Exchange, and Oracle databases and protection for Windows Active Directory. The software can restore a variety of hardware and virtual environments and uses Microsoft's Volume Shadow Copy Service to ensure reliability during hot backups so data access won't be impacted.

Amanda Enterprise supports a variety of backup media and methods. Data and archives can be stored on disks, tape, optical devices, or online storage services. The Department of Homeland Security has certified it is free of security defects.

Zmanda Amanda Enterprise 2.6.4

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Green Data Destruction

D3's New D3eraSE Service

DATA DESTRUCTION and green recycling efforts are often at odds with one another. Now, thanks to the new D3eraSE service from D3 (Digital Data Destruction Services), IT managers have another option for securely destroying data without permanently destroying the media on which it is stored.

D3eraSE is a Tier 4 electronic data destruction process that permanently removes all data stored on a hard drive or flash media in such a way that data recovery is impossible, yet the media is reusable. Because the D3eraSE service is more secure than simply overwriting the data, the NIST (National Institutes of Standards and Technology) classifies D3eraSE as acceptable for confidential documents. D3eraSE has also been accepted by the Department of Defense

for use with media containing data that's labeled as secret information.

In contrast with Tier 3 destruction or Department of Defense Directive 5220.22 triple-pass overwriting, which leaves the opportunity for up to 10% of the data to be forensically recovered, the D3eraSE Tier 4 service eliminates the possibility of forensic recovery.

D3eraSE's Tier 4 services provide a less extreme alternative to Tier 5 data destruction services that completely disassemble, degauss, and recycle hard drives. Plus, because media is still usable after using the D3eraSE Tier 4 service, customers can save thousands of dollars by reusing their existing stock of hard drives and flash media.

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Intellitactics Security Manager can provide reports to validate compliance with regulatory standards, internal policies, and industry best practices.

KNOWN FOR DELIVERING a holistic view of all the components within an IT infrastructure, Intellitactics increases the number of logs and devices that can actively be managed by any organization. Its flagship product, Intellitactics Security Manager, consolidates and analyzes data from security devices, operating systems, and applications to provide real-time threat detection, historical analysis for forensics, and compliance reporting.

Security Manager centralizes security information and automates log aggregation, security event management, actionable alerting, and incident response. One-click alert assessments and simple drill-down to the parsed and raw events provide contextual details for any alert,

enabling IT to streamline incident handling and providing reports that verify and validate compliance with regulatory standards, internal policies, or industry best practices.

Intellitactics' AIR (Active Integration and Response) program provides for the expansion of the security ecosystem through integration with leading-edge security products that leverage Intellitactics Security Manager's analysis of data sources. Security Manager's analytical engine generates notifications of threats. The integration of Security Manager with complementary security technologies provides the security team with a more complete picture and helps to better protect the enterprise and comply with regulatory standards by simplifying the ability to monitor, analyze, take action, and report on security-related events.

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MarketPlace ▲▼ NEWS

Brocade To Buy Foundry

IN A DEAL WORTH about $3 billion, storage networking firm Brocade Communications will purchase enterprise LAN vendor Foundry Networks. The boards of directors of both companies have approved the acquisition; now it needs to meet other closing conditions and get approval from Foundry stockholders. After that, the deal is slated to close in Q4. The companies do not expect to cut any jobs following the merger. The new firm will use only the Brocade brand, but current Foundry product names will remain in use. Brocade CEO Michael Klayko will lead the company, and Foundry President and CEO Bobby Johnson will also stay onboard, although his specific role is undefined thus far.

Juniper Announces New CEO, Posts Profits

MICROSOFT VETERAN EXECUTIVE Kevin Johnson will take over as chief executive of Juniper Networks and will also become a member of the board of directors. Scott Kriens, who had been Juniper's CEO, will continue in his role as chairman and will be in a leadership role when Johnson joins the company next month. Prior to this position, Johnson had been president of Microsoft's Platforms & Services Division and oversaw 14,000 employees and products such as Windows Vista. Meanwhile, Juniper's Q2 profits increased 40% year-over-year, from $86.2 million to $120.4 million, while its revenue grew 32% from last year, totaling $879 million.

Microsoft Revenue Tops $60 Billion

FOLLOWING A YEAR-OVER-YEAR gain in net income of 25% for fiscal year 2008, Microsoft announced that its yearly revenue has topped $60 billion for the first time in its history. Its fourth-quarter revenue of $15.84 billion was an 18% increase from that of Q4 2007. (Microsoft's fiscal year begins July 1 and ends June 30.) The company attributes its successful fiscal year to increased demand for its Microsoft Office offerings, server software, and Xbox games and systems; Microsoft also credits its Vista OS, reporting sales of 180 million licenses since its release.

Google Q2 Revenue Growth Slows

FOR ITS SECOND QUARTER, search giant Google posted revenue of $5.37 billion, up 3% over the $5.19 billion it recorded in the previous quarter, and up 39% from the same quarter a year ago. However, investors noted slower growth compared to the quarterly revenue growth of 50 to 60% Google experienced last year. Meanwhile, net income for the quarter was down from the first quarter, falling from $1.31 billion in Q1 to $1.25 billion in Q2. Analysts had predicted earnings per share of $4.73, but Google reported quarterly earnings of $4.63 per share, down from $4.84 per share in the first quarter.

Avocent Appoints New CEO

IT INFRASTRUCTURE MANAGEMENT systems developer Avocent has appointed Michael Borman to be its new chief executive officer and a member of the company's board of directors. John Cooper, the former CEO and chairman, retired on March 31, and Ed Harper took over as interim CEO. Although Harper will no longer be in that position, he will remain as Avocent's chairman. Before taking the CEO position, Borman was a top software sales executive at IBM, where he was responsible for more than 15,000 sales employees and oversaw worldwide sales for IBM's software business, worth more than $20 billion.

IBM Posts Q2 Profit

THE SLUGGISH ECONOMY seemed to have no effect on IBM in the second quarter; the company posted an overall 13% growth in sales, to $26.8 billion, and a 22% gain in earnings, to $2.8 billion. IBM attributes much of the growth to the success of its software and services offerings, while its systems and technology offerings had mixed success. Sales increases were achieved in various markets; IBM enjoyed an 8% gain in sales in the Americas and a 21% gain in markets within rapidly growing countries, such as China and Brazil. Additionally, IBM's sales within the SME market increased 13% to $5.1 billion.

Industry Group Predicts Downturn In Semiconductor Sales

THE SEMI (Semiconductor Equipment and Materials International) group has released a midyear sales forecast in which it predicts a 20% decline in sales of semiconductor equipment, a significantly steeper decline than the 1.4% it originally forecast in January. Gartner researchers agree with SEMI, predicting a 22% drop in semiconductor spending in the year to come. SEMI predicts the market will rebound in 2009 and 2010, when chipmakers are expected to move to the production of 300mm wafers, but cites lower spending in the memory market this year as affecting spending on semiconductor equipment.

Yahoo! Reports Drop In Profit For Q2

THE Q2 NUMBERS Yahoo! released have reportedly fallen short of those Wall Street analysts predicted—a fact that is likely not comforting to shareholders who are concerned about the company's ongoing acquisition debates with software giant Microsoft. Yahoo! reported an 8% year-over-year increase in revenue of $1.346 billion, a figure which fell just short of the predicted $1.374 billion. The company's net income fell from $161 million, or 11 cents per share, in 2007 to $131 million, or 9 cents per share, this year. Analysts believe that the company has suffered from its drama with Microsoft, which has been attempting to acquire Yahoo!'s search business since its first bid in February.

Cisco To Buy Pure Networks

CISCO HAS ANNOUNCED that it intends to acquire Seattle-based networking software developer Pure Networks in a deal worth $120 million. Pure Networks offers software designed to aid users in setting up, managing, and troubleshooting networks for PCs, Macs, printers, and other devices in small office/home office environments. Cisco has used Pure software in its Linksys Easy Link Advisor, designed to help customers set up home networks. With the acquisition, Cisco hopes to expand its offerings in the arena of home networking, where it sees a shift being made toward connecting peripherals outside the usual network, such as TVs and even refrigerators.

Microsoft To Acquire DATAllegro

MICROSOFT HAS ANNOUNCED that it plans to buy data warehouse appliance vendor DATAllegro in hopes of strengthening its SQL Server database platform for use in large-scale enterprise deployments. The acquisition will offer Microsoft to command DATAllegro's mix of data storage and business analytics software, which, according to Microsoft Server & Tools Senior Vice President Bob Muglia, will allow Microsoft to "compete with the highest-end enterprise data warehousing solutions." The terms of the deal were not disclosed; however, Microsoft plans to retain most of DATAllegro's 93 employees.

EMC Shows Strong Revenue, Profit

EMC POSTED its 20th consecutive quarter of double-digit revenue growth when its Q2 2008 numbers showed an increase of 18%, rising from $3.12 billion to $3.67 billion year over year. The company reported a 10% increase in revenue in the United States and even higher gains in other regions worldwide. The boost in sales buoyed EMC's Q2 2008 profit, as well, with figures climbing to $377.5 million, or 18 cents per share, from $334.4 million, or 16 cents per share, the same time last year.

"Spam King" Sentenced

ROBERT SOLOWAY, widely known as the "Spam King" for the massive amounts of spam email he sent out, has been sentenced to 47 months in prison, three years of probation, and 200 hours of community service. Following an indictment in May 2007, Soloway pled guilty to and was convicted of charges of fraud, spamming, and tax evasion. He had previously lost cases that Microsoft and an ISP in Oklahoma filed against him, though Soloway continued to spam after both. With Soloway's sentencing and subsequent time in prison, the court hopes to send a cease-and-desist message to other online criminals.

WATCH THE STOCKS

This information provides a quick glimpse of current and historical stock prices and trends for 14 major companies in the technology market.

Company	Symbol	Year Ago	July 18 $	July 25 $	% change from previous week
Computer Associates	CA	$26.63	$23.73	$23.41	▼ 1.35%
Cisco Systems	CSCO	$29.74	$21.66	$22.43	▲ 3.55%
Dell	DELL	$28.88	$24.23	$23.47	▼ 3.14%
Electronic Data Systems	EDS	$27.36	$24.71	$24.85	▲ 0.57%
Google	GOOG	$510.88	$481.32	$491.98	▲ 2.21%
HP	HPQ	$47.70	$43.42	$43.71	▲ 0.67%
IBM	IBM	$117.65	$129.89	$128.53	▼ 1.05%
Intel	INTC	$24.44	$22.09	$22.01	▼ 0.36%
McAfee	MFE	$35.34	$32.73	$32.89	▲ 0.49%
Microsoft	MSFT	$30.54	$25.86	$26.16	▲ 1.16%
Oracle	ORCL	$20.65	$21.18	$20.95	▼ 1.09%
Red Hat Software	RHT	$22	$21.19	$21.06	▼ 0.61%
Sun Microsystems	JAVA	$5.17	$9.48	$10.43	▲ 10.02%
Symantec	SYMC	$19.91	$19.14	$19.45	▲ 1.62%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

PRODUCTS / AT WORK

From Tape To Disk

Revinetix Offers Utah High School System Reliable Backups

by Drew Robb
• • •

IT USED TO BE FEASIBLE to spend the whole night or even the whole weekend backing up data; however, with today's 24/7 computing, backup windows just aren't what they used to be. Yet a backup at Juan Diego Catholic High School in the Skaggs Catholic Center school system in Draper, Utah, would go on all night and all of the next day. Using a tape-based system, the school struggled to back up its data on a regular basis.

The Skaggs Catholic Center is a Catholic school system consisting of more than 2,000 students. It encompasses four schools—Juan Diego, plus two others on campus and an additional school 10 miles away. Its IT network consists of close to 1,000 Macs, 12 Apple Xserve servers, and about 50 Windows PCs for administration lab work.

The schools connect to the Internet with a 60Mbps fiber line through the Utah state educational ISP. The Apple servers are used for tasks such as email, Web, file serving, library cataloging, and database hosting. All staff and students have their own logons and can access their accounts from any computer on campus.

Storage Needs

On the storage side, the organization backs up about 600GB of data. Previously, the school district utilized a tiered system. Tier one consisted of a VTL (virtual tape library) set up in a disk array with eight 400GB SATA hard drives. Each day, the entire system was backed up using two of the eight drives. The next day, backups went onto another two drives. Thus, the array

could hold up to four days' worth of backup. As a result, the disk backups had to be fed each day to a 400GB tape backup drive.

"We backed up on the hard drives at night and then had all the next day to back up from the hard drives to the tape," says Jim Duane, director of technology at the Skaggs Catholic Center.

To ensure the data would fit onto the LTO3 tape, the organization would use compression. However, it was quite common for two tapes to be required for a particular day, and tape reliability proved to be a serious hurdle to overcome. Backups were not completed on a daily basis, leaving the school district open to possible data loss. Fortunately, it never got caught with a major problem.

"Backups were horrendous to complete mostly due to bad/old media and tape drive failures," says Eric Browning, systems administrator at Juan Diego Catholic High School. "In the end, the tape drive had been replaced three times to no avail."

When it became necessary to recover data, Browning reported difficulty in finding specific files within the VTL. If it couldn't be located there, IT had to hope that the physical tape worked and contained the data. To make matters worse, the organization experienced finger-pointing from the backup software and tape drive hardware vendors.

"The problem with this system was that each of the tiers came from a different vendor and, of course, no matter what the problem was, whatever vendor we called for support blamed all our problems on the other two vendors," say Browning.

"Eventually, we reached a breaking point, and the old system was scrapped."

The Move From Tape To Disk

Given the hassles and setbacks experienced with the tape system, Skaggs Catholic Center went searching for an alternative. Primary goals for a replacement system were that it had to come entirely from a single vendor and had to eliminate tape from the process. In addition, hard drives had to be big enough to make disk backup efficient. Duane envisioned a move to a D2D2D (disk-to-disk-to-disk) architec-

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TOTAL DISK BACKUP

ture—one that would be able to support his Mac-based user and server base.

After looking into multiple ways of backing up data, Skaggs Catholic Center chose D2D2D technology provided by Revinetix (801/263-5116; www.revinetix.com), which offers both the appliances and the backup software. Furthermore, all service and support is provided in-house.

Known as Revinetix Sentio Pro 2 backup appliances, they provide 1.5TB of disk-based storage protected by RAID. The school district also purchased three 1TB off-site archive drives designed to connect/disconnect easily so they can be transported to a safe location in case of disaster.

"D2D2D is here, is affordable, is efficient, and is available from single-source manufacturers," says Duane. "Our new disk-to-disk-to-disk backup system works reliably, is manufactured and supported by a single vendor, is lightning-fast to retrieve individual backup files, backs up in a few hours at night, and only requires a single unit (an archive drive) for off-premise storage," says Duane.

Duane notes that the Revinetix appliance was easy to install. Minor issues to overcome included setting up filters to eliminate certain file types and a temporary glitch with backup client software installation. It took about two days to get everything up and running smoothly.

A Successful Switch

Skaggs Catholic Center quickly noted various benefits with the switch to disk. The Revinetix solution sped up the backup process from a full day and night to a few

hours and made it more reliable. Additionally, instead of having to pay for software per client, it is now licensed per server, which made a big difference in overall costs.

What about upgrades? In the past, this was a real hassle. Trying to corral three vendors rarely resulted in much forward progress. Now, upgrades occur with relative ease. Drive sizes, for instance, can be expanded later if desired.

"If I need to add a backup client, I just want to add the client and be done with it," says Browning. "With Revinetix, we can do that, and we have flexibility in the number of clients to back up. Further, the OS of the client is no longer a stumbling block when deciding on the type of server to deploy."

Browning grades the reliability of the old system at around 60% compared to close to 100% for the Revinetix approach, which has added up to far fewer headaches for IT, a lot less administrative time, and, most importantly, faster backups.

"[Before], every backup took 15 to 18 hours to complete, and it was rough on the servers," says Browning. "The Revinetix appliance completes full backups in less than 10 hours. Incremental backups take three hours maximum."

Archiving, too, is greatly simplified. After months of operation, the first removable archive drive still has room for more data.

"Our 600GB of data fits nicely on a 1TB archive drive," says Duane. "Gone are the days of having to use multiple tapes to perform a backup." ▣

> ## "Our new disk-to-disk-to-disk backup system works reliably, is manufactured and supported by a single vendor, is lightning-fast to retrieve individual backup files, backs up in a few hours at night, and only requires a single unit for off-premise storage."
>
> *- Skaggs Catholic Center's Jim Duane*

Aggressive Non-Delivery Report Spam Combat

SonicWALL's Email Security 6.2 Offers Complete Inbound & Outbound Email Protection

SPAM IS THE enemy of every network administrator; it clogs inboxes, creates unnecessary traffic, and can deliver malware. Although measures at the client level can combat these dangers, preventing spam from reaching desktops is a powerful way to keep your network secure.

SonicWALL Email Security 6.2 is designed to combat spam and backscatter messages with its new BATV (Bounce-Address-Tag-Validation) feature. When

the BATV function is activated, it combats NDR (Non-Delivery Report) spam by discerning a legitimate NDR message from an NDR spam message and dropping the connection from the spam's server.

When an outgoing message is sent, it is tagged with a private key; when NDR messages are received, the tag is checked for validity. As SonicWALL processes both in- and outbound traffic, this tag checking can be done seamlessly for both the customer and end users.

Other features of Email Security 6.2 include enhanced language capabilities, including Dutch, French, and Swedish; improved visual representation of performance metrics for easier monitoring by administrators; and simplified licensing, so

a user can choose the SonicWALL Email Security appliance or software system that best fits an organization's needs. For example, subscription services can be purchased in user packs of 25, 50, 100, 250, 500, 750, 1,000, 2,000, 5,000, or more as needed.

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WHEN YOU NEED data storage with maximum reliability, quality, and performance, Mercury Rack Pro solutions from OWC (Other World Computing) will exceed your needs. OWC has been providing quality hardware products and support since 1988, and the Mercury Rack Pro is no exception. It's available in sizes up to 4TB with drives that are striped (RAID 0), striped and mirrored (RAID 0+1), or JBOD (Just a Bunch of Drives). With a variety of models featuring FireWire 800, FireWire 400, USB 2.0, and/or eSATA interface ports, Mercury Rack Pro solutions provide seamless integration into your data center. To cut down on the cable clutter, port multiplier versions for the eSATA Rack Pros are also available.

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KoldLok Mini Keeps Air Where It Belongs

New Upsite Raised Floor Grommet Ideal For Small Cable Openings

HAVE A SMALL CABLE opening you need to seal in your raised floor? The KoldLok Mini Raised Floor Grommet from Upsite Technologies can improve your data center cooling. KoldLok Mini has virtually all of the engineering of original KoldLok products designed to reduce bypass airflow.

New KoldLok Mini features and benefits include a UL94 V0-standards fire-rating and KoldLok engineering at a competitive price. As with the original KoldLok products, the KoldLok Mini optimizes the effectiveness of existing cooling equipment and manages heat loads to ensure site uptime and reliability. The KoldLok Mini Grommet is offered with or without static dissipation.

Leading companies, from a wide variety of industries, know that even a small cable opening can contribute to air-management problems in the data center. By furnishing their data centers with KoldLok Mini Grommets, companies can instantly optimize their cooling capacity and, in the long-term, lower their TCO and reduce their carbon footprint.

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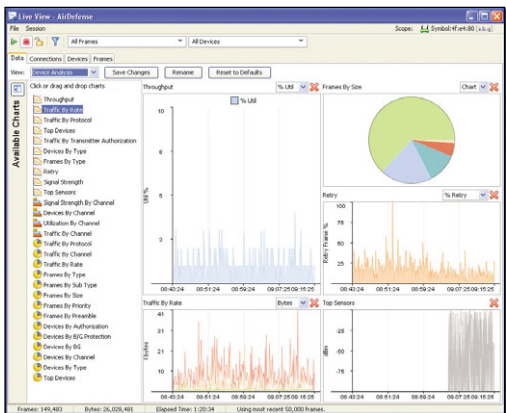
Live View uses charts and graphs to show network activity.

SECURITY IS ONE OF the most important issues facing any company. As a wireless intrusion prevention system, AirDefense Enterprise provides protection against wireless threats; monitors for policy compliance, performance, and troubleshooting; and features location tracking. Enterprise combines with wireless VPNs, encryption, and authentication systems for protection against wireless threats and unauthorized devices.

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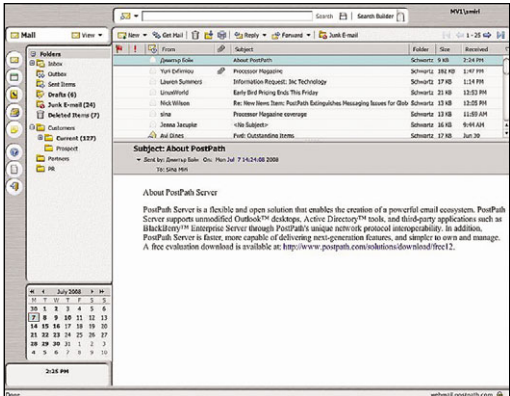
PostPath Server High Availability Edition v2 is a drop-in alternative to Microsoft Exchange.

POSTPATH SERVER HIGH Availability Edition v2 is a complete email and collaboration server that is a drop-in alternative to Microsoft Exchange and incorporates multiple measures to ensure ongoing service in the event of a failure in the underlying hardware or network systems. It consists of a multiserver bundle with one or more instances of the primary PostPath Server that act as the mailbox email server(s) during normal operation, plus a redundant server to take over in case of primary server failure.

The PostPath Server uses a "continually consistent" file-based data store. By exploiting the performance and capabilities of native server file systems, PostPath Server enables the use of the open and standards-based high-availability tools leveraged in PostPath Server High Availability Edition v2, simplifying the implementation and management of email services.

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EYE 2008 SP2 includes support for current heterogeneous devices, including the Cisco SSL Proxy module and client support on Windows Vista. To help network managers and architects visualize and author network topology in a geographical content, the new EYE software suite includes an EYE Connectivity Viewer to add background images and export maps in Microsoft's Visio format. The new features let IT staff superimpose network models or troubleshooting diagrams over maps or schematics.

EYE 2008 SP2 also features expanded router protocol awareness that lets EYE automatically discover HSRP-active routers and their peers, collect performance data, present reports, and deliver alerts on operational anomalies and thresholds. The real-time reports and alerts let IT staff proactively optimize the operation of high-availability networks. With scriptable device renaming, EYE 2008 SP2 helps automate workflows to fit the strategies of network admins and power users.

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Supported operating systems for the PL-60760 include Windows 2003/XP/XP Pro/Vista as well as Linux distributions including Fedora/8, Redhat Enterprise Linux 5, and Cent OS 5.

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Mantra 6 automates discovery tasks, quickly finding and classifying databases and the data within them to provide unprecedented visibility into the location of data assets, type of data assets in use, and potential risks to those assets.

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Streaming Media In The Enterprise

Plenty Of Bandwidth & Network Know-How Are Key

by Kurt Marko

• • •

WITH YOUTUBE EMERGING as the Internet's video scrapbook, Amazon and Netflix offering downloadable movies, and video clips available on every news site, streaming media has become a centerpiece of today's Web experience. Just as books and movies each have their role as entertainment vehicles, the Web has turned into a mix of text, sound, and video. As Kevin Towes, product manager for Adobe's Dynamic Media Organization (www.adobe.com), puts it, "People are looking for more effective ways of communicating and demanding more high-quality content," and streaming media is rapidly becoming a viable solution.

Enterprise Use Of Streaming Media

While consumers are turning to online video sources such as Joost and Miro for entertainment, Jayanth Angl, senior research analyst at Info-Tech, sees streaming media coming to the forefront in the business world in three major areas: broadcast of corporate events, employee training, and live television feeds.

As travel costs continue to escalate, Angl says that assembling remote employees for major company meetings and announcements is unrealistic. Instead, he sees distributed enterprises using video cameras and streaming infrastructure to broadcast events to remote locations. Secondly, Angl says, "a streaming infrastructure can also serve as a scal-

able and cost-effective platform for distributed enterprises to build and deliver a company-wide training program." The third, more specialized use of streaming video is the delivery of live television feeds to employees' desktops, Angl says. For example, he notes that in many industries, such as financial services, public relations, law enforcement, or emergency services, live TV news is an essential source of information.

A final use of streaming media in the enterprise is as a rich form of knowledge sharing, both between employees and to customers. As Chris O'Kennon of Faulkner Information Services points out, "Customer service and support has become an important segment of the streaming media market." Video clips are increasingly used to explain new product functions, answer frequently asked questions, or provide other forms of self-help.

What You'll Need

As with just about every application in this Web 2.0 world, Angl says a robust, high-performance IP network is the foundation of any successful streaming media deployment. Video streams consume vast amounts of bandwidth—500 to 1,000Kbps for TV broadcast quality—and are adversely affected by packet delay and jitter. Because degraded network performance can make a video stream unusable, Angl says, "enterprises that have identified a business need for video and are committed to building a streaming infrastructure will need to implement traffic prioritization to ensure optimal quality of service (QoS)." On networks without QoS, some of the newer streaming technologies offer workarounds. Towes points

out that Adobe's Flash player now supports so-called dynamic streaming that can automatically adjust bitrates to avoid the stuttering caused by network congestion.

Given the network's criticality to a smooth video experience, Angl says IT organizations will need a network management solution capable of real-time traffic monitoring that can diagnose and isolate performance degradation or other network problems. He concludes, "Managing network performance stands as the single biggest challenge for enterprises that are planning to utilize streaming media for internal communications."

Once the network plumbing is in place, the heart of a streaming media solution is a dedicated server. Most streaming servers run on commodity server hardware, although Angl notes that dedicated hardware appliances are also available for video capture and distribution. He cautions, "Pursuing this route can be expensive, [with prices] typically starting at $4,000 and up to $10,000 per appliance."

Another element users need to consider when planning a streaming media solution is content generation and capture. Broadcasting a live event is straightforward; essentially all that's required is a PC with a video capture card, because media servers can encode live feeds on the fly. Towes says that a bigger consideration, of particular concern to developers, is the video presentation to users—that is, how clients access the video and the interface's look and feel. Typically, video is embedded in a Web page with some surrounding controls and information. These so-called Rich Internet Applications are built using various authoring tools and application frameworks. According to Angl, "Selection of a streaming platform will depend heavily on the development skill set of IT resources. [In many cases,] application development teams will likely have significant influence on any decision."

Content Delivery Networks

Larger, geographically dispersed companies with heavy streaming usage may soon find WAN traffic becoming excessive, with concomitant performance degradation. One potential solution is to offload video delivery to a CDN (content delivery network). While initially designed for public media sites, he notes that CDNs are responding to the growing use of streaming media in the enterprise by developing services tailored to the business environment. Expanding from their roots operating remote media caching sites, Angl says CDNs are transforming themselves into full-service streaming media SaaS providers.

CDNs are still relatively expensive—$1 to $2 per gigabyte transferred—thus, many companies find that operating their own local media caches is more cost-effective.

Streaming media is a rich and engaging communication tool and can serve as a cost-effective replacement for live meetings and classes. Yet with advances in streaming software technology and video capture hardware, it needn't be an intimidating or expensive project for most IT departments if they have a solid, reliable network with plenty of bandwidth. With streaming servers available at low or no cost and numerous video-editing tools designed for the novice, streaming media is within the reach of any IT department. ▣

Keep Cool With Liquid Cooling

A Shift From Air To Liquid Cooling Is On The Horizon

by Don Reisinger

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DATA CENTER MANAGERS are constantly trying to find ways to defend their data centers against the many heat issues that can occur, and as such, cooling solutions are becoming more and more vital to the operation of the data center. There are many different configurations of cooling in the data center space, and liquid cooling is one technology that has a small share of the market. Though not widely used yet, many believe that liquid cooling solutions can help allay data center heat concerns, giving data center managers some peace of mind knowing their data centers are running at an appropriate temperature level and their equipment is up and running the way it should be.

In & Outs Of Liquid Cooling

Materials have a wide variety of heat-absorption capabilities, and unfortunately, air usually sits toward the bottom of that spectrum. Thus, it's difficult to transfer heat through air without a lot of airflow produced by fans, which makes it an inefficient way to cool a data center and the equipment within it, especially as heat output increases and requires more (and larger) fans for proper cooling. But as Herb Villa, a cooling specialist and field technical manager from Rittal (www.rittal.com), explains, using liquid is a much better solution because "[liquid] is 3,500 times more

efficient at transferring and transporting heat than plain old air." On top of that, heat transfer is much better from a solid to a liquid as compared to air.

By its very nature, liquid cooling is a better solution than air but generally costs more to use. Liquid cooling utilizes a liquid coolant to circulate through equipment, picking up heat at the heatsink and then circulating back through to cool down before going through the heatsink again. Unlike air, which needs force to cool a data center, liquid carries the coolant and makes for a more efficient manner of reducing heat issues. Additionally, liquid cooling requires less energy to operate than fans and generates little to no noise—a huge improvement over noisy fans.

Gaining Momentum

Although its cost is high right now and many companies still find that air solutions are adequate for their own data centers, liquid cooling is a major step forward in the cooling space, and more companies are realizing that owning such a solution helps in a number of ways, saving space and adding efficiency.

"Once liquid-cooled data rack solutions are adopted as the norm—rather than the exception—in data centers across the world, impacts on space and energy conservation, increased electronics density, and overall efficiency and reduced HVAC and overall cost savings to implement and sustain will be significant," says Marie Hartis of SprayCool (www.spraycool.com), a company that specializes in liquid-cooling tactical enclosures.

Although many companies tend to believe that the future of cooling is not in air, but in liquid, few are willing to jump on the bandwagon just yet. Unlike many other trends that are seemingly guaranteed progressions, liquid cooling veers off the established path of air cooling into new territory. Implementing a liquid cooling solution often means a change of hardware and infrastructure, so while liquid cooling is making IT managers take notice, it has yet to appeal to them given the costs associated with installation and deployment.

"The challenge is that today's embedded base of data centers is set up under the traditional air-cooled model, and few companies are willing to invest in retrofit," Hartis says. "However, as expansion takes place and new data centers are designed and built, the pressure to reduce space and increase density of computing power, while reducing overall power consumption and cost, will compel data center designers and IT senior management to more seriously consider designs based on using liquid-cooled racks."

Perhaps the real question most liquid cooling organizations are still trying to ask surrounds the idea of how long they're willing to wait for new data centers to be built and fitted with liquid cooling solutions.

In a struggling economy, few companies are considering the impact of data centers and even fewer are willing to either invest in a new data center or totally change the way they are cooled. But for those companies that are trying to embark on a new cooling solution, the need for certain equipment is actually quite minimal.

The Case For Liquid Cooling

As liquid-cooling solutions gain popularity, more companies are cropping up to serve the needs of customers in both large organizations, as well as those of small to midsized enterprises, and as more companies join the fray, there is a significant downturn in liquid-cooling prices, creating a relative boom in the industry that's making more data center managers take notice.

"Liquid cooling is becoming popular because of its efficiency," Hartis says. Although air cooling commands the industry, many companies are finding reason to switch to liquid cooling in hopes of benefiting from its increases in cooling effectiveness and the fact that, once implemented, it's more than 3,500 times more efficient than air and should be a far more robust solution over the long term.

As an added benefit, liquid cooling solutions are generally installed by the cooling vendor, requiring data center managers only to oversee the operation, meaning that implementation is easily the least troublesome aspect of the entire process.

As prices come down and more companies start to build new data centers or want a better way to ensure all their data and equipment is protected, liquid cooling is sure to gain ground. Though no one can predict when the liquid-cooling boom will happen, cooling companies are guessing it will happen soon, and its impact on an SME will be great. ▣

Action Plan

Implementing a liquid cooling solution is not something that can be done overnight—it requires proper planning and research. Here are some things to keep in mind as you consider moving to a liquid cooling system.

- Assess your current state of cooling to determine if a liquid cooling solution is right for you.
- If you decide a liquid cooling solution is in your future, prepare a budget and be aware that it will be a costly proposition. Be sure you have all the funds necessary for investing in equipment, installation, and monitoring.
- Once you decide on a particular solution to implement, ensure that all equipment and data is ready and safeguarded during the changeover from your current solution to the liquid cooling system.

[**"Liquid cooling is becoming popular because of its efficiency."**

- SprayCool's Marie Hartis]

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EFFICIENCY IS KEY in any data center, but it can be difficult to achieve when you need to move and rebalance workloads among different types of environments and platforms, a need PlateSpin addresses with PowerConvert Version 7.0.

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With a drag-and-drop interface, users can remotely decouple workloads from a server and stream them to another host, physical or virtual. In essence, PowerConvert is designed to enable users to maintain service-level requirements by optimizing and relocating workloads quickly.

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The Need For Speed

10 Gigabit Ethernet & Its Role In The SME

by Chris A. MacKinnon

• • •

As data volumes increase in the small to midsized enterprise and things such as video and voice become standard methods of communication, the need for a faster Ethernet technology becomes more and more apparent. Enter 10 Gigabit Ethernet.

Brian Gong, marketing communications spokesperson at Foundry Networks (www .foundrynet.com), defines the technology as "a telecommunication technology that offers data speeds up to 10 billion bits per second. Built on the Ethernet technology used in most of today's LANs, 10 Gigabit Ethernet offers a more efficient and less expensive approach to moving data on backbone connections between networks, while also providing a consistent technology end-to-end."

Gong says that on multimode fiber, 10 Gigabit Ethernet will support distances of up to 300 meters; on single-mode fiber, it will support distances of up to 40 kilometers. Additionally, smaller Gigabit Ethernet networks can feed into 10 Gigabit Ethernet networks.

The SME Impact

John Peters, senior vice president and CTO of Performance Technologies (www .pt.com), says the impact that even Gigabit Ethernet has on the SME boils down to how much an enterprise will be able to handle traffic-wise. Peters comments, "The impact would be that an SME would be better equipped to handle nearly any application employing voice, data, or video. The bottleneck will no longer be the local LAN but rather the servers themselves or the broadband interface to the Internet."

10 Gigabit Ethernet, however, is expected to be used to interconnect LANs, WANs (wide-area networks), and MANs (metropolitan-area networks). 10 Gigabit Ethernet uses the familiar IEEE 802.3 Ethernet MAC (Media Access Control) protocol and its frame format and size. Like Fast Ethernet and Gigabit Ethernet, 10 Gigabit Ethernet uses full-duplex transmission, which makes possible a considerable distance range.

Although 10 Gigabit Ethernet isn't exactly standard in the small to midsized enterprise, Joe McClain, product manager of the Enterprise Networks Division at ADTRAN (www.adtran.com), says over the next few years, SMEs will continue to see a migration away from Fast Ethernet to Gigabit Ethernet speeds. "Much like 10Mbps Ethernet was replaced by 100Mbps Fast Ethernet, Gigabit Ethernet will eventually replace Fast Ethernet as the default choice for end users." If the enterprise keeps following this same pattern, 10 Gigabit Ethernet could be the standard in no time.

McClain adds, "Keep in mind that moving from Fast Ethernet to Gigabit Ethernet [or 10 Gigabit Ethernet] will not automatically fix a slow network. While throwing more bandwidth at the problem may help, users should look for business-class switches that support QoS (Quality of Service). QoS can ensure that business-critical applications or VoIP can get the bandwidth that they need to prevent them from being starved out by low-priority bandwidth-hungry applications."

Garnered Technology

So why is 10 Gigabit Ethernet gathering so much attention these days? Gong notes, "The accelerating growth of worldwide and internal network traffic is forcing everyone from service providers to enterprise network managers and architects to look to ever higher-speed network technologies in order to solve the bandwidth demand crunch. Today, these administrators typically use Ethernet as their backbone technology."

Gong says since Ethernet has become an enterprise standard, there is a competitive market for Ethernet solutions and products, and it has become cost-effective for enterprises of all sizes to upgrade their Ethernet networks to Gigabit and 10 Gigabit Ethernet to handle and prepare for increasing network traffic demands.

McClain says that, until recently, there was a significant cost delta between Fast Ethernet and Gigabit Ethernet infrastructures. He elaborates, "Most SMEs could not justify the cost of upgrading to Gigabit Ethernet. Most new computers are now shipping with Gigabit network interface cards as standard equipment, and the price of Gigabit switches has now reached a point where SMEs can justify the small additional cost." McClain adds that because users continually need more and more bandwidth for graphical applications (or even to email large attachments), the move to 10 Gigabit Ethernet can potentially pay for itself with improvements in user productivity.

A Real Factor

Gong says Ethernet technology is currently the most deployed technology for high-performance LAN environments. He notes, "Organizations around the world have invested cabling, equipment, processes, and training in Ethernet. In addition, the prevalence of Ethernet keeps its costs low, and with each deployment of next-generation Ethernet technology, deployment costs have trended downward." Gong says in today's networks, the increase in worldwide network traffic is driving SME network administrators to look to higher-performance network technologies to meet rising bandwidth demands.

Within small to midsized enterprises, switch-to-switch applications, as well as switch-to-server applications, can also be deployed over a more cost-effective multimode fiber medium to create 10 Gigabit Ethernet backbones that support the continuous growth of bandwidth-intensive applications. "With 10 Gigabit backbones implemented," Gong notes, "SMEs will have the capability to begin providing Gigabit Ethernet service to workstations and to the desktop in order to support applications such as VoIP, multimedia messaging, Web conferencing, streaming video and audio, medical or industrial imaging, centralized applications, and high-end graphics."

Gong says 10 Gigabit Ethernet will also provide lower network latency due to the speed of the link and over-provisioning bandwidth to adjust for the variable nature of data in enterprise applications.

Gigabit Considerations

Peters says there are important items for SMEs to consider when preparing for faster Ethernet speeds. "Simply put," he says, "SMEs need to make sure they have the appropriate LAN cabling in place to seamlessly take advantage of the increased LAN speeds. Category 6 or 7 cabling should be considered if the data center would like to someday retain its investment for use with even faster versions of Ethernet such as 10 Gigabit."

Peters says other considerations will be in the areas of both cooling and power, although the demands at the network level are far less than at the actual compute servers themselves. "If the data center is well-designed and equipped to handle the latest generations of server technology, this should be adequate for the deployment of switches or routers employing faster Ethernet speeds." ▣

Action Plan

"SME network administrators must make sure the infrastructure they are purchasing today is equipped to handle their organization's needs in the future, regardless of size," says Brian Gong, marketing communications spokesperson at Foundry Networks (www .foundrynet.com). Here are some questions Gong says you should ask as you prepare for 10 Gigabit Ethernet.

- Is the product energy- and space-efficient?

- Are the products software- or hardware-upgradeable?

- Is there flexibility in line card usage and configuration?

- Can an organization buy as it needs to?

- Does the product adhere to open standards so that network administrators are not locked to one vendor and can choose a best-of-breed approach if they choose to do so?

The Drive Toward SSD

allow SMBs to reduce the number of total servers required, thus reducing overall costs, or they may enable more SMBs to take advantage of cloud computing, utilizing outsourced server capacity to reduce the need for a high [capital expenditure] on IT infrastructure," he says.

Performance certainly drives uptake for other hardware, and some experts say they believe the impressive I/O performance of SSDs—at least in some usage cases—will be welcomed by IT professionals. "I/O is one of the more difficult aspects to storage management, namely because end users often have

> It is important for technologists to understand the environment and understand how changing storage methodologies impacts their application performance and reliability."
>
> *- Data393's Steve Merkel*

no meaningful way to translate what they do to I/O operation metrics within a storage subsystem," says Steve Merkel, CIO at Data393 (www.data393.com), a managed hosting and colocation facility in Denver. "So having I/O to spare will make capacity planning around storage a bit easier."

Not Quite Perfection

According to Sherman Black, senior vice president and general manager of

Seagate's Enterprise Compute division (www.seagate.com), SSDs are an option—an expensive option—for only the largest data centers, while their costs will likely prohibit widespread adoption in SMEs. Further, future integration of SSDs into data centers will depend on suppliers doing a better job of describing their products and the development of standards.

"Today, there is considerable confusion in the marketplace on descriptions of performance and endurance of SSDs, creating situations where the wrong product was used in an application and ultimately does not meet the needs and expectations of the end user. There are many technologies that can be used to create SSDs, including MLC [multilevel cell] and SLC [single-level cell], and each has different performance and reliability characteristics," Black says.

He adds that the SSD industry needs a more concerted effort to define best-fit applications for SSDs, such as enterprise vs. notebook, so that IT architects can make better-informed decisions. Another potential drawback is that elements of SSD per-

formance vary from other storage technologies, but not always for the better. Merkel says that depending on the implementation, SSDs could have slower write performance than conventional storage devices.

"Some SSDs are rated for fewer write cycles than other technologies. Consequently, SSDs may not make sense if the application has an I/O profile that contains large percentages of small writes. It is important for technologists to understand the environment and understand how changing storage methodologies impacts their application performance and reliability," Merkel says.

Eye Toward The Future

SMEs willing to assume the role of early adopter will discover that SSDs are not difficult to integrate into an existing storage architecture. Samsung's Beard says that while some SSDs offer SAS and Fibre Channel connections, the industry is leaning more toward SATA connections. For example, Samsung offers 2.5-inch SATA drives that can integrate into any environment that accommodates SATA drives.

However, while IT professionals won't need to revamp existing hardware or software to accommodate SSDs, the technology could bring future challenges. "There are some unique characteristics of an SSD requiring extensions to existing interface standards," Seagate's Black says. "For example, the NAND flash used in SSDs eventually will wear out. In this example, extensions are needed to the existing interface standards to provide gas gauge-like reporting functionality so that SSDs can be replaced before they reach the end of their useful life."

Action Plan

Integrating SSDs on an experimental basis is a relatively painless process, but long-term plans require a more structured plan of attack. The following tips can help prepare your data center for SSD technology in the future.

- Seek information from all possible sources. Follow emerging industry standards groups, such as JEDEC's JC64.8 subcommittee, which focuses solely on issues around SSDs.

- Gain an understanding of applications running in the data center from an I/O perspective.

- Work closely with server suppliers to understand available SSD options.

- Test SSDs within the data center's application stack under real-world test cases. Evaluate the impact or total cost of ownership for particular uses.

Although Merkel has yet to see any impact from SSDs within the data center space—primarily because adoption rates are low at the server or large storage arrays level—he acknowledges the technology holds promise. "Clearly we are excited about the technology and what it could bring—namely, reduced power consumption and increased I/O performance," he says. "However, until we start to see production deployments of the technology on any real scale, the impact will be theoretical."

Software License Compliance

exposures—and need to treat their licensing just as seriously," says Mann.

Also, administrators should be cognizant of the costs that a software compliance audit can incur. Scott Rosenberg, CEO and founder of Miro Consulting (www.miroconsulting.com), says, "Audits can cost anywhere from several thousand to a few hundred thousand to millions of dollars." Just one software compliance audit that ferrets out numerous compliance findings could drive a company clear out of business.

Common Mistakes

The biggest mistake administrators at SMEs can make is assuming they will not be audited because they are small, says Jing To, senior product marketing manager at BDNA (www.bdnacorp.com), a provider of IT infrastructure insight and analysis solutions. In fact, adds To, the fines incurred from being out of compliance can be many times higher than the time and money spent putting in place the processes and technology to ensure compliance.

You Have A Software Audit. Now What?

Here are a few tips and hints to prepare for a software compliance audit:

- Providing detailed, up-to-date information about applications installed on all systems and their licenses, combined with change history reports, can give you the upper hand in an audit, says KACE's Meinhardt.

- Keep your head. Also, retain a software licensing/compliance consultancy that specializes in the software platform being audited, says Miro Consulting's Rosenberg.

- Rosenberg also recommends setting up a single point of contact and communicating with the software vendor.

Another common and costly mistake is the overbuying of expensive software packages just to make sure a business is in compliance, says KACE's Meinhardt. The main reason behind overbuying is to provide the business with a protective buffer in case it is ever audited, he adds. This is an unnecessary expenditure that the company can avoid by implementing a better way to track and manage software purchases.

Technology can be a godsend, and this holds true for software license management. According to EMA's Mann, one common mistake businesses make is relying on static, manual processes, such as spreadsheets, to manage their software licenses. In fact, says KACE's Meinhardt, trying to track software licensing compliance using spreadsheets for even a small, growing business is "a recipe for disaster."

Miro Consulting's Rosenberg points to overspending or underlicensing due to poor planning, failing to pay attention to the fine print in licensing agreements, and not keeping up with changing licensing rules as mistakes businesses commonly make.

Getting It Right

Software license compliance is certainly a tough issue to manage. So what should SMEs with limited budgets and resources do in order to keep themselves in compliance and out of trouble?

According to KACE's Meinhardt, "Effective license compliance requires both clearly defined and communicated policies, as well as the tools to back them up." He says organizations need to establish and communicate software purchase and installation policies and clearly communicate that unauthorized and unlicensed software on corporate systems is unacceptable. Finally, he adds, SMEs need tools that allow administrators to effectively deploy and track software, assign and track the corresponding licenses for installed software, and provide the reconciliation

capabilities needed to demonstrate license compliance.

EMA's Mann says manual procedures, even for smaller businesses, are not reliable. So, he says, SMEs need to automate the process by using active discovery tools that find both authorized and unauthorized deployments.

But, says Jeremy Soref, senior product manager for software DRM (digital rights management) at Aladdin Knowledge Systems (www.aladdin.com), "the implementation of comprehensive compliance systems may be beyond the resources of many SMEs, particularly those at the smaller end of the spectrum." Soref recommends users with limited resources obtain self-enforcing software licenses based on software DRM. These tools provide monitoring and management capabilities that can help SMEs stay in compliance and even analyze their existing capacity, he says.

Miro Consulting's Rosenberg says the key to remaining in compliance is "software asset management." He recommends that administrators have an outside software licensing consultant conduct annual audits. Creating a repository of information on software assets and keeping all documentation, such as proof of ownership and copies of all SLAs (service-level agreements), can help businesses stay in compliance. Rosenberg recommends that businesses reconcile this information at least every six months. He adds that automating the process with a discovery tool to identify where software is installed in the enterprise can help a business remain compliant as needs change.

Teamwork is also critical to success. BDNA's To says the procurement department and the business need to work together to ensure business needs are met with the most optimal price from the vendor. But, he says, both sides need to have reliable information automatically gathered from the environment, such as information on software deployments (what has been deployed and where has it been deployed), how rapidly the software is being adopted, and how much it is used, if at all.

The Impact Of Virtualization

As if software license compliance wasn't difficult enough, now administrators must contend with a new wrinkle: virtualization. Andi Mann, research director at Enterprise Management Associates (www.enterprisemanagement .com), says virtualization rewrites the whole licensing methodology: Licensing paradigms are more complex, there is more software to worry about, it is easier to deploy unlicensed software, and it's much harder to detect what has been deployed. Also, he adds, deployments can happen in the blink of an eye and can move around and disappear very quickly.

Rob Meinhardt, CEO and co-founder of KACE (www.kace.com), says virtualization makes it much easier to create new systems, rapidly multiplying the number of systems the SME must track and reconcile. And because these machines are virtual, they are extremely difficult to detect with physical inventories.

Finally, virtualization is a relatively new technology, so many software vendors have not yet defined licensing policies for virtual systems. Scott Rosenberg, CEO and founder of Miro Consulting (www.miroconsulting.com), recommends that administrators use experts to assist with the management of software assets when they use virtual environments.

"Without this information, it is difficult for both sides to make effective decisions without negatively impacting the business," says To.

Staying compliant with software licensing agreements is a must in today's world, given the prevalence of software and the ever-increasing complexity of IT infrastructures and licensing agreements. A combination of automated discovery technology, good policies and procedures, and plenty of diligence are the recipe to software license compliance success.

Monitor Infrastructure Intelligence

Get The Most Out Of Your Applications With Integrien Health Check
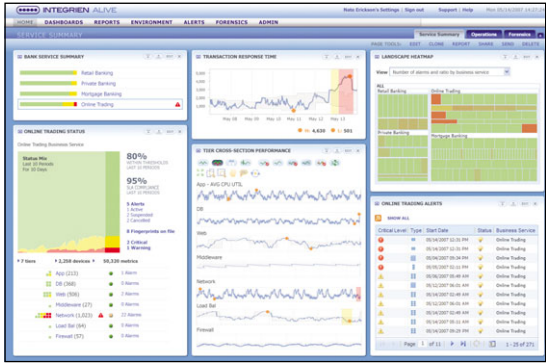
Integrien's Health Check service provides a summary of transactions, trading, and tier cross-section performance.

TO EFFECTIVELY MONITOR the progress of applications and services, enterprises must determine where internal issues originate. Integrien offers a new systems management service for this purpose: Integrien Health Check.

Health Check uses the data center operations solution Integrien Alive to access historical data and analyze business performance. Companies are first required to provide 60 to 90 days of past infrastructure data. As Health Check deciphers the causes of brownouts and outages, it captures models of problematic behavior so companies can identify recurring bad patterns. Through Health Check's insight into the "heartbeat" of a specific application, users can observe how applications are performing based on static threshold results.

To understand the association between business performance, user experience, and IT communications, Health Check employs an advanced correlation method to develop a PMDB (Performance Management Database). A PMDB analysis includes the following reports: application behavioral analysis report, "top influencers" report, and a root cause forensics report. This database can supply crucial information regarding the interrelation of infrastructure components, enterprise operations, and user practices.

Integrien Health Check

Application service that pinpoints IT performance problems

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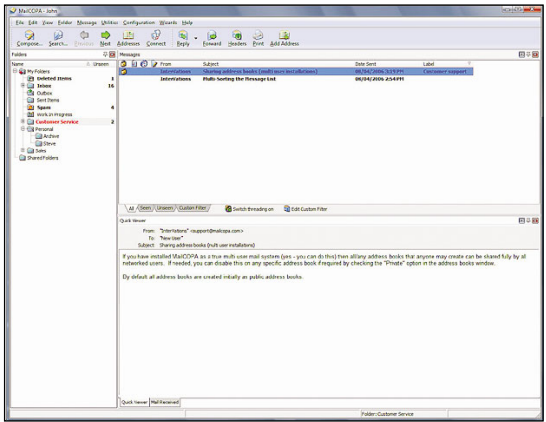
InterVations MailCOPA updates all shared email users in real time, displaying critical message information.

CHECKING VARIOUS EMAIL addresses of co-workers or looking through your own accounts can often be a time-consuming burden. InterVations MailCOPA v. 9 is a multiuser email program for Windows that can help you manage multiple email addresses. If you have a team of employees using multiple email addresses on multiple computers, MailCOPA ensures that all emails are secure, stored centrally, and available immediately to the people who need to access them.

MailCOPA can bring together each employee's emails from multiple accounts and make it easy to share emails across the network. MailCOPA lets a team of employees answer messages without the risk of emails being answered multiple times by different workers. MailCOPA updates all shared email users in real time, displaying information about which messages have been opened or replied to. The program provides a simple, efficient way to manage help desk tickets, technical support requests, and any information stream from clients and prospects.

The interface is customizable, and you can create macros and templates to personalize correspondence. Messages can be threaded for easy viewing or locked to ensure they won't be deleted.

InterVations MailCOPA

Starts at $39.95 for a five-user, single machine license; 30-day trial version available

Manages multiple email addresses, ensuring emails are secure and centrally stored

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PRODUCT OF THE WEEK

Genuine Windows Licenses On Preowned PCs

Microsoft Authorized Refurbisher Program Gives Large Refurbishers Software Credibility

by Robyn Weisman

• • •

THE MARKET FOR REFURBISHED PCs is booming, thanks to several drivers, says IDC analyst David Daoud. On the one hand, the weak U.S. economy has squeezed IT resources, making secondhand PCs, laptops in particular, more cost-efficient alternatives to paying top dollar for new machines. On the other hand, emerging economies in such African countries as Ghana are migrating to the online world, expanding the demand for entry-level, utilitarian PCs that can handle such basic activities as Web surfing and Microsoft Office.

MICROSOFT AUTHORIZED REFURBISHER PROGRAM

Description: A service that provides refurbishers a painless way to volume-license preowned Windows PCs

Interesting Fact: MAR is not the first refurbishing program Microsoft has launched. Microsoft's Community MAR program does much the same thing for refurbishers that supply PCs to educational institutions, charities, and other nonprofits. Community MAR is also a worldwide service, something that Microsoft expects its business MAR to be.

(425) 721-4254
www.microsoft.com/oem/mar

In Daoud's estimation, Microsoft's introduction of its MAR (Microsoft Authorized Refurbisher; 425/721-4254; www.microsoft.com/oem/mar) program last October comes at a perfect time. MAR's primary service is to provide PC refurbishers an easy-to-use means of securing volume licensing for Microsoft Windows on refurbished machines. Through this service, MAR gives refurbishers a scalable means to install Windows on however many PCs they refurbish in a given day, month, or year.

Microsoft is offering these licenses, either Windows XP Home for Refurbished PCs or Windows XP Professional for Refurbished PCs, in English, Spanish, and French versions. That's so that PC refurbishers can resell these genuine Windows machines to anywhere in the United States and the world, obtaining a higher resale value, write Gartner analysts Frances O'Brien and Mark Margevicius in a recent research note. Moreover, potential buyers can rest assured they are receiving a quality-tested, genuine Windows PC from a reputable reseller.

Meanwhile, Microsoft benefits by becoming an important part of this growing space and having the ability to sell Windows licenses on preowned computers for a second time, albeit at lower prices than it can charge for new PCs, says Daoud. "It's necessary for Microsoft to be a player in this space because it deals with PCs, Microsoft's core market," he says. "For Microsoft to neglect this market, it's not a reasonable play."

The Growth Of The Market

For his part, Bradley Hopkinson, a director on Microsoft's Genuine Windows product team, says the commercial refurbisher market is in the region of 35 million PCs. In addition to these preowned PCs, another 20 million refurbished PCs will be sold through noncommercial retail channels. Moreover, Hopkinson says that probably another 100 million PCs are languishing in a garage or a cupboard or are potentially thrown out.

Daoud points out that refurbishers don't require having Windows preinstalled to successfully resell PCs, particularly overseas. Because refurbishers are not required

to sell the hardware with an operating system, end users can download different flavors of Linux.

MAR Advantages

However, Hopkinson says that customers reap advantages when purchasing refurbished PCs via MAR partners. "The unit from a technology perspective has been tested and from [a] licensing perspective has [a] legal, genuine copy of Windows on these machines," Hopkinson says. "And our channel partners are able to do a lot of market around the COA (Certificate of Authenticity), [such as] what does a refurbished COA unit look like, and why is it important to look for that COA to ensure that the product they're purchasing is running genuine Windows."

Meanwhile, companies seeking to dispose of their obsolete (for their needs) PCs reap the benefits of outsourcing this task to a MAR channel partner. By using one of these partners, companies are guaranteed that their old PCs go through an approved Microsoft software licensing management process, which includes hard drive wiping that follows a certain high level of security protocol, the proper installation of Windows, and the assurance that best practices are used with regard to environmental regulations, says Hopkinson.

Partner Plans

According to Hopkinson, Microsoft's MAR program deals 100% with its partner channels, which include such well-known refurbishers as Converge (www.converge.com), Redemtech (www.redemtech.com), TechTurn (www.techturn.com), Intechra (www.intechra.com), EPC (www.epcusa.com), and Apto Solutions (www.aptosolutions.com).

"As we grow the program, . . . we are investing a certain percent of our marketing investments into our Web site portal over the next few months, and it will be improved dramatically to allow enterprises that are considering buying [refurbished PCs] to understand clearly what the process is and who the partners are in their area that do refurbish," says Hopkinson.

In addition, these interface improvements will provide information for enterprises looking to dispose of their units. Hopkinson

says, "Today it's probably not that clear in terms of who [enterprises] contact, and inherently these refurbish partners haven't had very strong marketing organizations themselves, so what we're going to be doing is working through them to enable them" to do a more effective job in obtaining PC disposition agreements with the aforementioned enterprises.

Presently, MAR only facilitates Windows licenses for refurbished desktops and laptops; however, Hopkinson says that Microsoft is in the initial stages of figuring out ways to expand MAR into the preowned server market, as well. "The challenge we have with servers is that we don't have a way of ensuring there was a genuine copy of Windows on the server initially," Hopkinson says. "However, we hope to make some significant steps forward in the next 12 months." P

BENEFITS TO THE REFURBISHER

- Provides recognition and status as a MAR (Microsoft Authorized Refurbisher)
- Enhances the relationship with Microsoft, including marketing support and account management
- Creates an opportunity to build extra revenue and margin via market differentiation
- Provides access to proprietary tools to simplify Windows XP deployment on refurbished PCs
- Provides access to cost-effective operating system licenses for refurbished PCs to provide customers an end-to-end solution

BENEFITS TO THE END USER

- Provides a higher-quality PC preinstalled with a genuine Microsoft operating system
- Creates the opportunity to purchase a solution rather than just hardware
- Allows access to benefits of downloads, updates, and enhanced features
- Provides an upgrade path to future releases of the Windows operating system software

SOURCE: MICROSOFT AUTHORIZED REFURBISHER PROGRAM

Keep An Eye On Network Traffic

Palo Alto Networks' PA-2000 Series Of Firewalls Offers Affordable Protection

COMPANIES THAT HAVE remote branch offices and swelling ranks but limited IT staff face vulnerabilities to security threats.

Palo Alto Networks addresses these needs with the PA-2000 family of midrange firewalls. The firewalls enable midsized enter-

prises, as well as those with remote locations, to have comprehensive visibility and policy control over network flow and the applications therein, all at a cost-effective price.

Features of the PA-2000 series, which consists of the PA-2020 and PA-2050, include purpose-built hardware, identification technology, and PAN-OS, a security-specific OS with integrated networking, threat prevention, and management features.

Other features include App-ID, User-ID, and Content-ID. App-ID provides visibility and control of hundreds of applications, and it enables policy enforcement according to application, category, underlying technology, behavior, and risk. App-ID functions regardless of application port, protocol, encryption, or evasive tactic.

For user- or group-specific policy definition and reporting that integrates with Active Directory, the PA-2000 firewalls sport User-ID. The Content-ID feature

facilitates real-time, broad-based threat prevention, URL filtering, and file blocking. The PA-2020 model features throughput of 500Mbps, while the PA-2050 offers 1Gbps.

The firewalls boast a high-speed backplane and up to 20 traffic interfaces and dedicated out-of-band management interfaces.

Palo Alto PA-2000 Series Firewalls

Start at $12,000

Provide cost-effective firewall protection for midsized enterprises or those with remote branches

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Product ⌧ Releases

CLIENTS

■ **3PAR** announced 3PAR Thin Copy Desktop for VMware VDI (Virtual Desktop Infrastructure), an integrated virtual desktop provisioning and management utility. 3PAR Thin Copy Desktop lets customers automatically provision high-performance virtual desktops to consume a fraction of the bandwidth and storage capacity required of traditional storage. It builds on 3PAR Virtual Copy to create a resilient utility computing infrastructure that maximizes the benefit of centralized desktop management. 3PAR Thin Copy Desktop offers high-performance desktop booting, automated provisioning, and rapid desktop recovery while consuming 90% less capacity for desktop images. Using 3PAR Virtual Copy, the Thin Copy Desktop supports up to 128 read/writeable snapshots per base volume.

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■ **Codima** has announced additions to its Network Inventory and Visualization solution, IT Asset tool autoMap, which creates topology drawings of any IT network in Microsoft Office Visio and improves network planning and operational efficiency. Additions include a speed-up on VLAN discovery, support for more than 4,500 device types, and robust handling of network discovery. autoMap can eliminate time-consuming manual tasks and increase accuracy.

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■ **Fujitsu** launched the fi-6670 and fi-6770 color duplex scanners. The scanners also ship with Kofax VirtualReScan 4.2 Professional, and Kofax VRS 4.2 CGA (Color Graphics Adapter) board-equipped models are also available (fi-6670A and fi-6770A) for users looking for improved image processing capabilities. Features include up to 90 pages per minute, support for long document scanning (up to 10 feet), Intelligent Multifeed function for better batch scanning, Auto Size Detection, and an ergonomic design.

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■ **HP** introduced the latest version of the HP Project and Portfolio Management Center, which is an IT management platform that lets CIOs manage projects, portfolios, application life cycles, and IT services. The HP PPM Center 7.5 fully integrates with Business Technology Optimization software such as HP Service Management Center, HP Quality Center, and HP Universal Configuration Management Database. New features include automated workflows, module enhancements based on user feedback, advanced configuration capabilities, new project management and demand management e-Learning End-User Training courses, and enhanced offerings from HP Software Professional Services. HP offers the HP PPM Center as software as a service or as an in-house deployment.

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■ **Kyocera** launched its PrintQ Manager, which is a server-based software tool that lets users monitor, maintain, and analyze print jobs and usage. PrintQ Manager works by creating secure printer/MFP job queues on a user's network, which lets it deliver advanced user/group print-tracking capabilities, access controls, and employ robust reporting for Kyocera-networked MFPs and printers. The offering can also monitor device availability in real time, which lets users route print jobs from overburdened printers and MFPs to idle or more available devices.

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■ The **Oracle** Hyperion Profitability and Cost Management platform, a performance management application that increases cost and profitability drivers' visibility within an organization, is now available from **Oracle**. The tool, a component of Oracle Fusion Middleware, is designed to help companies gain actionable insight into profitability and cost, improve efficiency, and align resources to positively impact financial performance.

Oracle also released Oracle Access Management Suite, a comprehensive tool for next-generation access management. The package is designed to enable risk-based authentication, proactive online fraud prevention, and fine-grained authorization, in addition to best-of-breed functionality such as Web access management and identity federation. A key component of the Oracle Access Management Suite, Oracle Entitlements Server, is designed to help application developers externalize and centralize fine-grained authorization policies. Other features of Oracle Access Management Suite include native integration and support for a wide range of middleware, as well as hot-pluggable capability with many applications and platforms.

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■ **Parallels** Plesk Control Panel and Power Pack is now available, the result of a partnership between **Parallels** and **PEER 1**. The Control Panel and Power Pack are designed to give hosters the ability to quickly, cost-effectively, and securely deploy interactive Web applications to customers. Customers can use the package to design more functional, advanced, and feature-rich Web content and applications. The Plesk Control Panel and Power Pack includes the Application Vault for SaaS applications and offers customers an integrated package of tools to automate the deployment process, reduce costs, and increase revenue. Features include SpamAssasin, Application Pack, Helpdesk, Tomcat, ColdFusion, and MS SQL Add-Ons.

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■ **Quantum** has announced enhancements to its Vision global management and reporting software and to its DXi7500 enterprise disk backup system. Quantum's Vision software has expanded its multi-unit monitoring and reporting features, which help increase ROI across users' global data protection environments. In addition, DXi7500 now has a 9TB model, which extends the scalability of a company's enterprise disk backup system.

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■ New PCI and PCI Express cards from **Perle** offer full support for the IEEE 1284 parallel port standard. Look for model names SPEED LE and SPEED LE Express, respectively. Also available are combo cards with both parallel and RS-232 serial ports.

STORAGE   JULY 4, 2008

Manage Archived Data

Navigate Your Information Stores With B&L's Archived Data Manager

ADM™
Archived Data Manager

THE ABILITY TO effortlessly search for a single piece of information amid a sea of data is a dream come true for many organizations. With simple organization in mind, B&L Associates has created ADM (Archived Data Manager), a Web-based application that combines historical backup catalogs and organizes them for easy access and management of offline archived data.

Using B&L's patent-pending data extraction technology, ADM can quickly load a server's backup catalog from popular tape backup solutions, including Symantec's Veritas NetBackup, EMC's Legato NetWorker, CA's ARCserve, and HP's Omniback II and Data Protector. ADM features a simple view of a company's backup catalog information and an easy method of searching files by backup application, backup sever, backup client file name, date/time, and expiration date.

B&L highlights ADM's compliance with the amendments to the Federal Rules of Civil Procedure regarding historical backup data. ADM's file-level search makes file discovery quick and easy, which reduces the amount of tapes sent out for content indexing. In accordance with other state and federal laws, ADM features alerts to archived files that are ready for expiration, letting organizations quickly reduce their historical data and avoid related liabilities.

ADM features vast accessibility; once Archived Data Manager has been installed on one computer, it can be accessed from any computer with an Internet connection, making enterprise-wide use possible. Other features include rapid data extraction, enabling ADM to load a server's backup catalog into the ADM database without interrupting normal business procedures.

B&L Archived Data Manager

Provides a single view of backup catalog information and an easy way to organize and search for files

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STORAGE   JULY 4, 2008

Hard Drive Destruction With No Caveat

Verity Systems' VS7000 Hard Drive Destroyer Prevents Data Theft

THE DISPOSAL OF computers requires careful forethought; not only should electronics be disposed of in an environmentally friendly manner, but obsolete hard drives often contain sensitive data. Simply tossing an old hard drive in the trashcan is not effective disposal; anyone can retrieve the drive and access the data it contains, even if all the files on the drive have been deleted and erased. Leaving data on a discarded hard drive is unwise for any computer user, but it can be disastrous for a business. Physically destroying a hard drive is a surefire way to ensure that no data can ever be mined from a particular device.

The Verity Systems VS7000 Hard Drive Destroyer is specially designed to render a hard drive completely useless. It's completely self-contained, needing only a minimal amount of hand cranking to operate; this makes it particularly useful if a situation arises wherein expeditious disposal is necessary but electricity is unavailable.

The VS7000 can destroy any standard hard drive or laptop drive in less than 15 seconds with only eight turns of the hand crank. A special ratcheting feature makes destroying multiple hard drives simultaneously or crushing especially resistant hard drives a minimal effort.

The VS7000 works by pressing down on a hard drive, bending it approximately 90 degrees. In doing so, the platters are bent and the heads, motor, and circuit boards are damaged, rendering the drive useless and the data unrecoverable.

Verity Systems

$4,125

Manual, portable device that physically destroys hard drives to prevent data theft

(800) 642-5151

www.veritysystems.com

VERITY SYSTEMS

Product ✐ Releases

MESSAGING & TELEPHONY

■ **Sybase iAnywhere** announced support for the iPhone 3G to extend wireless email from Lotus Notes and Microsoft Exchange email systems. iAnywhere Mobile Office provides iPhone 3G users with a unique approach to providing enterprise email support for the iPhone that reduces potential security concerns while providing a rich user experience utilizing native iPhone applications. In the near future, Sybase iAnywhere expects to enhance iAnywhere Mobile Office with additional components such as push email, contacts, corporate directory access, and calendar.

NETWORKING & VPN

■ **01 Communique Laboratory** released I'm InTouch Premium, a remote access software designed for business users. I'm InTouch Premium enables organizations to provide employees with remote access to their workstations from anywhere—without the need for them to leave the computer on all the time. The Remote Wake-Up feature allows I'm InTouch to automatically detect if your computer has been turned off, and it can "wake it up" to provide you with remote access. Instead of leaving their computers on when leaving at night, for the weekend, or for vacation, employees can shut their PCs down and still access their important files. I'm InTouch Premium also includes central administration controls that allow for multiple computers to be managed and accessed from a single screen. Companies can now designate a user as the administrator of I'm InTouch Premium accounts.

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■ **Motorola** has announced the release of the PTP 300 Series Wireless Ethernet Bridge. Enterprises and government agencies can utilize this solution to connect with 99.999% reliability in harsh geographical environments. The PTP 300 covers a 155-mile line-of-sight distance and a 6-mile non-line-of-sight range. The radio frequency planning application, PTP LINKPlanner, coordinates single and multiple links for PCs and Macs. The PTP 300 supports the following types of applications: multimedia, IP gaming, distance learning, disaster recovery, network backhaul, and link backup. The combination of MIMO (Multiple Input/Multiple Output) and i-OFDM (intelligent Orthogonal Frequency Division Multiplexing) enables the PTP series to support point-of-presence, building-to-building connectivity.

Motorola has also released the 11n LANPlanner, an 802.11n software which includes predictive networking capabilities. The LANPlanner suite is capable of surveying overall network performance and pinpointing spots that may be hindering a wireless user's connection to an AP. The advanced network migration wizard is designed to provide feedback on three scenarios: new building/new deployment, rip and replace deployment, and mixed deployment. Enterprises that plan to utilize 11n technology must include two or more streams or MIMO to augment multipath performance. Because the 11n LANPlanner can predict site-specific executions, IT departments can focus on increasing network efficiency.

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■ **SteelEye** has announced the availability of SteelEye Protection Suite, a comprehensive disaster protection solution for virtual machines running on Citrix XenServer. SteelEye Protection Suite offers real-time LAN and WAN replication of XenServer virtual machines. Protection Suite protects XenServer deployment against unexpected downtime, integrates with XenMotion and XenCenter, and is a host-based storage repository replication solution that provides true continuous data protection.

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■ **Texas Instruments** introduced a 13W PoE (Power over Ethernet)-powered device controller with an onboard DC/DC converter specifically designed to meet the needs of IEEE 802.3af-compliant applications. The TPS23753 is optimized for isolated DC/DC switching topologies, including flyback topology. The TPS23753 will operate on a wide range of local power supplies in cases where Power over Ethernet power is not available. The device operates from 12V to 57V, including operation down to 9.5V to support droop on any 12V local power supply. The DC/DC converter allows for operation in this range with an 80% duty cycle and current slope compensation, reducing output rectifier stress for 12V adapters. To ease design with local power supplies, the TPS23753 features adapter priority programming that allows the designer to select which power source to use when both PoE and local power are available.

PHYSICAL INFRASTRUCTURE

■ **D-Link** has released the Fixed Dome Network Camera (DSC-6110), an indoor/outdoor, business-oriented camera aimed at discreet monitoring, protecting against tampering, and connecting to external devices. The IP-based network camera includes a VGA progressive CMOS sensor and built-in Samba client for NAS, which means there isn't a need to directly connect the camera to a PC or other hardware or software to capture or transfer video. Additionally, the camera includes 802.3af PoE support, letting the camera receive power and data over one Ethernet cable. Other features include dual streaming of MPEG-4 and MJPEG video, 3GPP Mobile Surveillance support, free D-Link ViewCam 2.0 software for managing up to 32 network cameras, a 3.7mm-to-12mm varifocal lens, and 3-axis lens adjustment for wall mounting.

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■ The M7259 is a DB25 dual-channel A/B switch from **ESL**. It can connect a device such as a workstation between two networks or other devices via an RS-530 interface. The M7259 supports auto-switching and is meant to be controlled via a remote port (there are no local controls on the switch itself).

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■ **Raritan** announced the Raritan PM Series, a brand of PDUs (power distribution units) for managing power in data center racks in real time, providing advanced warning to protect against potential circuit overloads that can affect IT equipment. The PM Series provides more choices for customers to meet various power applications driven by high-density blade and cloud computing.

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■ **Vette** has expanded its line of liquid-cooling products for high-density server, storage, and communications equipment. The company's line of LiquiCool products now includes Rear Door Heat Exchangers, which are compatible with leading brands of IT racks. Additionally, Rear Door Heat Exchangers will replace the rear door of a new or existing equipment rack. Rear Door Heat Exchangers use advanced liquid-cooling technology that removes warm exhaust air before it can enter a facility's white space. The product eliminates moving parts and fans and can reduce energy costs by 50% or more.

SECURITY

■ **Breach Security** released WebDefend version 3.4, the latest version of its Web security appliance. WebDefend 3.4 makes it easier for businesses to comply with the PCI DSS (Payment Card Industry Data Security Standard) by securing magnetic

Product ⊠ Releases

stripe data, cardholder verification numbers, and personal identification numbers. WebDefend version 3.4 also expands the masking capabilities of sensitive payment account data. It now allows administrators to mask full magnetic stripe data, preventing it from being stored or displayed anywhere within the WebDefend software, including in audit logs and within the management console. Other notable features include scam detection and an enhanced profile engine that continuously builds site profiles in live environments based on actual traffic and real-world use.

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■ **Elcomsoft's** Distributed Password Recovery product now includes a speed-related feature that quickens the rate of password recovery. Using patent-pending technology, the software can accelerate password recovery when a compatible Nvidia graphics card is installed, including all GeForce 8 and GeForce 9 cards. The acceleration technology offloads CPU-based password-retrieval tasks to the graphics card's scalable processors. Elcomsoft says the GPU acceleration in Distributed Password Recovery makes password recovery up to 50 times faster compared to methods that only use a computer's primary CPU. Other features include multiprocessor and multicore support for up to 16 CPUs/cores on one machine, password recovery over the Internet or LAN, plug-in architecture for adding additional file formats, and more.

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■ **PGP** has announced its data loss prevention solution, PGP Endpoint, which provides data encryption and device policy enforcement for removable storage devices and mobile data connections technologies. PGP Endpoint enables administrators to create and enforce policies for device usage, specify and allow only authorized use of devices and sharing of encrypted data, and view device usage logs.

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■ **Reflex Security** announced Reflex VSC (Virtual Security Center). Reflex VSC provides a single authoritative visual interface to secure the virtual data center. Coupled with Reflex VSA (Virtual Security Appliance), the VSC rounds out the Reflex virtual security management solution. Reflex VSC increases the visibility of an organization's virtual infrastructure so it can be properly secured. Reflex VSC first discovers the entire virtual environment to determine the security controls needed to fully secure the infrastructure with Reflex VSA. With Reflex VSC, operations and security teams have a single authoritative visual interface to administer, secure, and monitor the dynamic virtual infrastructure. Organizations with VMware ESX environments will benefit through Reflex VSC's integration with VMware's VirtualCenter. Reflex VSC discovers virtual assets and maps them so users can attain a visual view of the virtual infrastructure. Through the combination of visibility and revision control provided by Reflex VSC, Reflex VSA has been enhanced, giving administrators the insight required to understand, monitor, and secure dynamic virtual environments.

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■ **Smartrac** has released a product line covering inlays for active cards within the company's High Security segment. The company says RFID inlays for active cards differ from traditional RFID card inlays where components and functionality are concerned. The cards include a battery, switch, display, and microchip, giving the card the ability to generate one-time passwords, thus increasing security of e-payment processes. The card inlays use Smartrac's proprietary wire-embedding technology. Additionally, the company has developed a lamination

process that can securely embed all electronic components in the inlay.

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■ **Sophos** has added features to its managed WS1000 Web Security Appliance aimed at improving technicians' abilities to stay current on end-user tools and current threats to security and compliance. The features, which are offered as a free, automatic upgrade, include proxy reputation service, which tracks various online sources to identify proxy sites/service when they become available and publishes updates to the proxy block list; real-time proxy scanner, a patent-pending detection engine; HTTPS scanning, which enables scanning and filtering of SSL-encrypted traffic; SafeSearch enforcement, which enforces SafeSearch mode within major search engines; and enhancement reports, which track behaviors against acceptable use policies and conduct forensic audits.

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■ **Sunbelt Software** has released the VIPRE Antivirus + Antispyware security solution. VIPRE works to protect a system from malware by seamlessly combating threats. Using multiple inspection techniques, VIPRE can detect if a file is harmful or good via its signature-based design. VIPRE's antirootkit technology uses FirstScan to bypass Windows and perform a hard drive scan for hidden infections. Active Protection features real-time system monitoring that uses signature matching, heuristic analysis, and behavioral analysis to keep malware out before it can find a way inside. Other VIPRE features include comprehensive email threats and remediation support from SMRL (Sunbelt Malware Research Labs).

SERVERS

■ **Asempra Technologies** unveiled Asempra Business Continuity Server 2.7 to provide new levels of scalability, as well as support for larger or consolidated Exchange 2007 and business-critical SQL applications. The increased scalability in version 2.7 allows Asempra to eliminate the need for multiple data protection and recovery products, trim operating costs related to application and data recovery, and reduce capital expenditures associated with storage purchases. The Business Continuity Server also allows users to send and receive emails or process SQL transactions while the complete data set is being recovered. Version 2.7 extends the Business Continuity Server platform to new Microsoft applications, with support for Microsoft Exchange 2007, Windows File Server, and SQL 2005 on 64-bit architectures. Additionally, Asempra supports backward-compatibility with SQL 2000 on Windows 2003.

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■ **Dell** has announced the Precision R5400 rack workstation and the Dell FX100 remote access package. The Precision R5400 is designed to place applications and data in a secure central location or data center to keep data secure, as well as remove system-generated heat and noise from populated spaces. Features of the Precision R5400 include dual- and quad-core Intel Xeon processors, support for up to two PCI-E x16 OpenGL graphics cards with dual 150-watt slots on the motherboard, and simple installation and management. The FX100 is designed to enable PC over IP, which includes hardware-based encryption, compression, decompression, and decryption.

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■ **Marathon Technologies** has announced the everRun VM Single Host Trial Edition, which provides enterprises with features including automated setup, management, configuration, and intuitive interface.
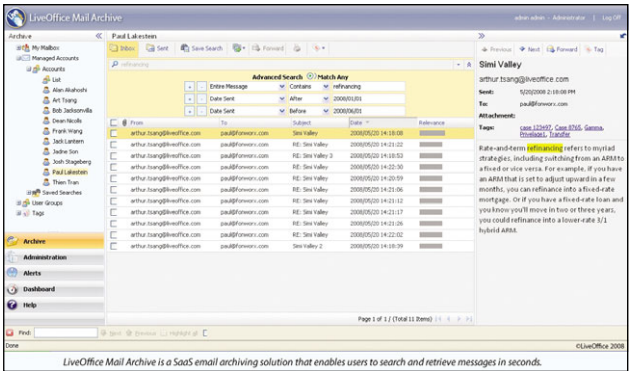

Convenient Mailbox Management

Email Archiving For Enterprises Of Any Size

IT and HR can conduct an advanced Mail Archive search of user accounts by message, date, and content.

REGARDLESS OF A business' size, forward-moving organizations must respond to the increasing volume of emails filling user inboxes. Email archiving is a necessity for maintaining an efficient exchange of information, but this can become a challenge when IT resources are limited.

LiveOffice Mail Archive offers an archiving, compliance, and e-discovery solution for customers who want to minimize storage costs yet protect their organization at the same time. This SaaS platform uses Web 2.0 along with cloud computing to execute quick search and retrieval.

Through full compliance, LiveOffice Mail Archive enables companies to centralize and search the email repository, as well as identify user misconduct within individual messages. Unlimited mailbox storage gives users the ability to view and recover both archived messages and attachments. Discovery provides rapid search response and communication protection.

LiveOffice Mail Archive SaaS is designed to help IT simplify archive management strategies and secure email data without placing a burden on internal finances.

LiveOffice Mail Archive

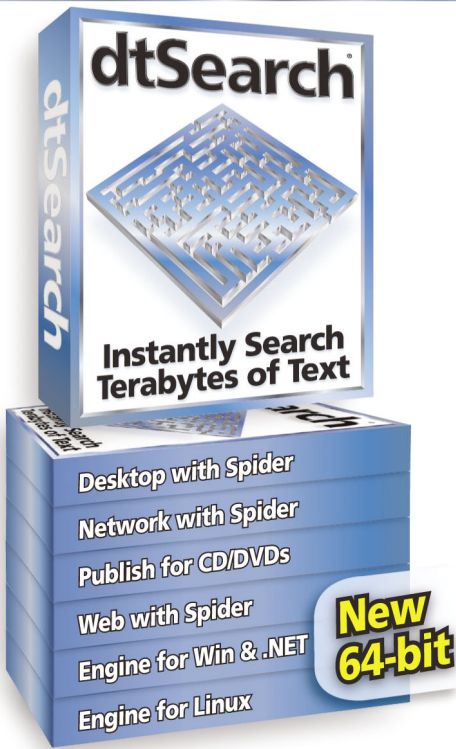Cloud storage archiving platform for streamlining user emails

$8 per mailbox, per month; includes unlimited storage and personal archive access for end users

(800) 251-3863

www.liveoffice.com

LiveOffice *Mail Archive®*

Product ☑ Releases

Functioning as fully automated, high-availability software, everRun VM can protect a VM in less than two minutes, test failure scenarios, and provide online VM to XenServer migration.

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■ **Mazu Networks** has added time analytics to the Mazu Profiler which include application performance, networking, and security features. The Mazu Profiler lets IT ops deploy end-to-end application delivery. Through NBA (Network Behavior Analysis), the Profiler can assess network traffic and decipher interactions between users, applications, networks, and systems. According to Charles Kaplan, chief technology strategist for Mazu Networks, "Network Behavior Analysis is no longer optional; it is a necessity for any organization running critical business services on their network. From IT operations to security, Mazu Profiler is the only solution on the market that can apply behavior analysis to provide intelligence across the IT infrastructure."

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■ **Opengear** has added Network UPS Tools to its console servers, providing a boost to power management for data centers and remote branch offices. Network UPS Tools is open-source software that provides secure monitoring and control of UPS hardware from APC, Belkin, MGE, Powerware, Tripp Lite, and other manufacturers using one interface. Opengear is offering the full Network UPS Toolset as a standard feature with all its rackmount console servers.

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■ **Verari Systems** announced that the Verari Systems' VB1257 VMware ESX 3.5-certified blade delivers twice the number of VMware virtual machines per blade than similar competitive blade offerings while consuming 50% less power. The Verari Systems' VB1257 blade is certified on VMware ESX 3.5 and powered by the latest low-power quad-core Intel Xeon processors. When combined with the BR2-XL platform, the solution delivers twice the number of VMware virtual machines with industry-leading energy efficiency, density, and scalability while significantly reducing operational expenses. The VMware virtualization power of the VB1257 for the BR2-XL means users can combine up to 16 physical machines onto just one blade server, twice as many as competitive blade offerings, while requiring only half the power of their offerings.

STORAGE

■ **C2C** has announced that Archive One, its data management and archiving product, offers an easy, rapid-install solution that does not require any external databases. Items are indexed internally and stored directly into an optimized repository structure to form the archive. Archive One helps companies solve problems with email capacity, access and protection management, email policy reinforcement, and regulatory requirement compliance.

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■ **Kofax** announced the Kofax Transformation Modules, which is a suite of information capture applications for automated document classification and data extraction. Kofax Transformation Modules 3.5 features learn-by-example technologies for invoice extraction and data validation functionality. Kofax Transformation Modules 3.5 is fully integrated with Kofax Capture and supports a variety of document scanners, content and information management systems, workflow applications, and databases.

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■ Enterprise-class storage at SME pricing is the goal of **Nexsan** with its green DataBeast. This 25U or 42U rackmount storage system can store up to 336TB of data and is expandable to 4PB. The DataBeast uses SATA and SAS hard drives and has 4Gbps Fibre Channel and NAS connections supporting block and file access concurrently. The system also features Nexsan's AutoMAID technology to reduce power consumption, plus tools for thin provisioning, virtualization, and other high-end storage needs.

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■ **SECUDE International AG**, **Actebis Peacock**, and **Seagate** released FDE (full disk encryption) disk drives to provide drives with integrated hardware-based encryption. SECUDE's FinallySecure, in conjunction with FDE hard drives, allows users to employ either software- and/or hardware-based full disk encryption. FinallySecure provides security functions for management, PBA (preboot authentication), and recovery. In addition, FinallySecure implements a software-based full disk encryption for all legacy systems. The combination of both technologies under the same user interface and with identical management functions gives businesses the option to encrypt data either with software or hardware-based FDE and provides a smooth migration during the transition to hardware-based FDE.

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■ The StoreJet 25P is a portable, 2.5-inch hard drive with a USB 2.0 connector from **Transcend Information**. The slim drive, which comes in a 250GB capacity, features bundled software for anonymous Web browsing, encryption, compression, and more. Transcend touts the drive's "racing-inspired" aesthetics. The StoreJet 25P also is available as a bare SATA enclosure without a hard drive.

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■ **Toshiba Storage Device Division** announced a 200GB-per-platter 5,400rpm HDD (hard disk drive) and a family of 7,200rpm HDDs, offering up to 320GB storage capacity. The standard 9.5mm-high package of both HDDs fits existing product designs, enabling an easy migration path to high-capacity storage. In addition to increasing density to 308Gb-per-square-inch, the 400GB MK4058GSX incorporates acoustic techniques that make the 5,400rpm HDD nearly inaudible during seek operations. Toshiba's 7,200rpm MKxx54GSY series delivers first-rate performance through a combination of factors: optimized firmware, caching algorithms, and fast data throughput of 1,020Mbps. The MKxx54GSY provides a variety of capacity options ranging from 80 to 320GB. For added durability in mobile applications, free-fall sensor options also are available on the HDD series. The eco-conscious MK4058GSX and MKxx54GSY also deliver lower power consumption and cooler operation than 3.5-inch HDDs at the same capacity points.

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■ **WD's** 2.5-inch VelociRaptor comes in a 3.5-inch form factor heatsink for use in blade and 1U/2U rack servers. The 10,000rpm drive features a 16MB cache buffer and a 3Gbps SATA interface, and it's rated for 1.4 million hours' use (mean time between failure). Its Rotary Acceleration Feed Forward technology ensures that the VelociRaptor doesn't miss a beat in a system with many drives all sending out their own vibrations.

A Greener VPN

Columbitech's Mobile VPN Conserves Battery Power On Your Mobile Devices

With transparent access to applications and enterprise content, mobile users can work from any network connection with Mobile VPN.

VPN IS ESSENTIAL for business travelers, but many mobile users find that using a VPN connection quickly drains the batteries on their mobile devices. Columbitech's Mobile VPN requires 40% less battery power than traditional VPN tools, enabling secure remote access to the corporate network without crippling the battery life on the traveler's laptop or mobile phone.

Mobile VPN is completely software-based, so IT staff members don't need to install additional, dedicated VPN servers. The use of existing hardware resources provides energy savings and lowers the company's capital expenses. And Mobile VPN's software-based approach also allows you to secure wireless legacy equipment, which can help extend the lifetime of network hardware.

Unlike conventional VPNs based on IPSec and L2TP (Layer 2 Tunneling Protocol) for wireline networks, Columbitech's Mobile VPN uses SSL-based VPN with software running at the session OSI level to avoid issues at the application layer. Mobile VPN's session-level architecture allows the VPN connection to meet mobile user demands for stable, transparent use. If a wireless connection drops, Mobile VPN keeps the session open until the user can reconnect to the Internet.

For security, Mobile VPN uses the WTLS (Wireless Transport Layer Security) protocol—the common standard for protecting WAP mobile phone transactions. The strong authentication and encryption tools let remote workers securely transmit confidential data to the corporate network, regardless of location.

Columbitech Mobile VPN

Provides secure and seamless access to enterprise applications from mobile devices

(212) 946-4820

www.columbitech.com

Intelligent Capture & Exchange For Business Communications

Kofax's Communication Server 8.0 Adds Increased Functionality

THE EFFICIENT and highly functional exchange of information is vital to the success of any company. Businesses need to be able to pass information among parties and keep a reliable archive of all messages. Kofax Communication Server 8.0 (known in previous iterations as TOP-CALL Communication Server) addresses the need for a single, central communication application.

Kofax Communication Server 8.0 is designed to automate the exchange of information between high-end, mission-critical applications. All inbound and outbound electronic messages in virtually any format—including email, fax, voicemail, and SMS—can be routed across large distributed environments with the server. Further, Kofax Communication Server 8.0 can convert messages from one format to another and archive each one.

Kofax Communication Server 8.0 can be configured as a high-volume enterprise fax server, but it can also be connected to applications such as those from SAP, Microsoft, Novell, IBM, and other ISV systems. A number of new features have been introduced in this version of Kofax Communication Server, among them VMware server virtualization support

port, advanced email functionality, support for H323 and SIP, and enhanced FoIP (Fax over IP) capabilities. It also supports disaster recovery systems and environments such as Lotus Notes 8, SAP NetWeaver 7.0, and Windows Vista.

Kofax Communication Server 8.0

Offers enhanced support for FoIP, advanced email functionality, and virtualization support
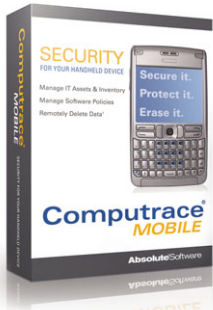
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Computrace Technology Goes Mobile

Absolute Software's Secure Data & Asset Management For Handhelds

AS BUSINESSES OF every type and size go more and more mobile, an important need arises: keeping all those mobile devices secure. Computrace Mobile from Absolute Software offers IT asset management and remote data delete software to address these needs. Based on Absolute's Computrace technology for desktops and laptops, Computrace Mobile provides companies with central management capabilities for their handheld mobile population.

With Computrace Mobile installed on a device, IT administrators can remotely delete all or selected files, which helps prevent sensitive data from falling into the wrong hands and meets compliance standards. Admins can do all of this through a single interface. Further assistance is available through Absolute Software's Customer Center.

Once the Computrace Agent (the technology that "calls home" if a device is lost or stolen) is installed on a device, users can customize reports or select from any of the preconfigured ones to glean information on hardware, configuration, user profile, and installed software. From the password-protected Computrace control panel installed on the device, users can force a test call; view the time, type, and success of the test call; view ESN; view version information; and change the password.

Absolute Software Computrace Mobile

Can be added onto an organization's existing Computrace product; pricing is dependent on the package type

Provides secure IT asset management and remote data delete capabilities

(800) 220-0733

www.absolute.com

Meet The Newest RAID

NetCom USA Introduces RAID Storage Systems For Critical Data

THE NR6 FAMILY of RAID storage systems is the newest member of NetCom USA's storage solution offerings. Available in capacities of 2, 4, and 8TB with data transfer speeds up to 400MBps, NR6 storage systems are a fast, reliable solution for storage of mission-critical data.

NetCom USA's NR6 family of storage products is ideal for increased network storage capacity, medical image storage, HD video/audio productions, and near-line backup.

Businesses generate more data than ever before and require fast, continuous access to their information. The NR6 family of storage systems provides protected storage of important information including emails, accounting reports, marketing assets, engineering projects, and creative productions—quickly and safely—while remaining cost-effective.

NetCom USA provides proven RAID technologies for data protection that secures information and ultra-fast access to data for increased productivity.

Features include:
- A factory-matched HBA (host bus adaptor) for PCI, PCI Express, or PCI-X
- Compact 2U rackmount design
- Dual hot-swappable power supplies
- Removable and lockable drive trays for added security
- Easy installation (often completed in just minutes)

The NR6 systems provide safe, economical storage expansion for IT networks and support Windows, Linux, and Macintosh operating systems. RAID levels supported include 0, 5, 6, and 10 for maximum performance and data protection.

NetCom NR6 RAID Storage Systems

Starts at $4,649

Available in capacities of 2, 4, and 8TBs with transfer speeds up to 400MBps

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Customize Backup & Recovery

NovaStor's NovaBACKUP 10 Provides Local & Online Data Protection

DATA PROTECTION IS NOT ONLY CRITICAL for computer users, it's essential for the defense of PCs and servers. To secure user data, an SME must set a backup system in place.

NovaStor's NovaBACKUP 10, a comprehensive data protection and disaster recovery solution, supports both local backup and online storage. In the event of an onsite disaster, NovaBACKUP 10 takes a snapshot of the entire system, which enables fast restoration of a local or network source. Online recovery can copy or mirror information to FTP, Internet storage accounts, or corporate servers.

In terms of flexibility, NovaBACKUP 10 enables users to restore all files or select specific files for backup. Users can also customize backup times and, with the flexible scheduler, choose the right routine for automatic backups so they can track when their data is processed. Other convenient features include Smart Select backup for photos, music, documents, or emails and plug-and-play support for devices such as DVDs, CDs, Blu-ray discs, USB devices, and tapes.
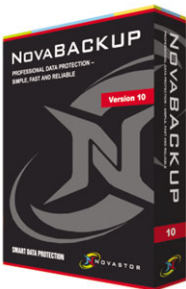
NovaBACKUP 10 comes in three versions: Professional, Server, and Business Essentials. NovaBACKUP 10 Professional offers basic backup and recovery for single workstations running Win2000/XP/Vista and features 2GB of free online storage for one year. NovaBACKUP 10 Server is designed for Windows 2000/2003 Server and includes 5GB of free online storage. NovaBACKUP 10 Business Essentials offers 10GB free online storage for a year along with priority support. This version is suitable for SMEs running a single SQL and/or Microsoft Exchange Server.

NovaStor NovaBACKUP 10

Data protection and disaster recovery software that users can customize

Professional $49.95; Server $199.95; Business Essentials $499

(805) 579-6700

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Email Archiving With Data Integrity

ArcMail's Defender U3160 Improves Productivity & Reduces Strain On IT Resources

EMAIL HAS BECOME the de facto means of communicating in an office setting. Archiving all that data is important, and managing it effectively can help a company improve productivity and reduce the strain on IT resources. It's crucial to ensure data integrity so archived data can't be altered.

ArcMail Technology addresses these needs with Defender U3160, a standalone appliance with 16TB of storage that provides comprehensive archive and data management. The appliance operates seamlessly in the background. Both administrators and end users can use a simple, Web-based interface to search for and retrieve archived email data. ArcMail Defender U3160 can be used either in the office or remotely.

Admins have a variety of abilities with ArcMail Defender U3160, including being able to monitor system settings and produce reports to ensure that emails are being successfully archived. Once data has been archived, it's protected by data integrity and encryption technology to ensure that data that has been backed up and subsequently restored can't be altered.

ArcMail Defender U3160 is easy to install, use, and manage and captures all inbound, outbound, and internal email with the mail server's journaling function. Operating on the Linux platform, the appliance is compatible with Microsoft Exchange, Lotus Notes, Groupwise, and other mail servers with journaling functionality.

**ArcMail Technology
ArcMail Defender U3160**

$34,999

Provides email archiving with data integrity and encryption

(866) 417-6495

www.arcmailtech.com

Web Security For Every Size Of Enterprise

Aladdin's eSafe v6.2 Proxy Expands Security Options For The eSafe Family

INTERNET-RELATED SECURITY THREATS are nothing new, but they're as dangerous as ever. Checking for Internet threats in real time is a powerful way to combat malware of every kind. Aladdin Knowledge Systems' family of eSafe products is designed to address security issues on multiple levels. The latest addition to the arsenal is eSafe v6.2 Proxy, a Web-security application for both in-line and proxy implementation.

By virtue of its implementation options, eSafe supports virtually any network environment. Protection occurs in real time and is designed to help companies protect data, improve productivity, and enable compliance. eSafe can be deployed as a native proxy that integrates Microsoft ISA or as an in-line bridge/router, forwarding proxy, or ICAP proxy.

eSafe v6.2 Proxy is designed to inspect all HTTP, HTTPS, and FTP over HTTP traffic thoroughly to protect the network from viruses, spyware, spam, Trojans, and more. Aladdin designed eSafe v6.2 Proxy to provide complete protection, high performance, and intelligent and thorough inspection.

The eSafe family is a flexible security package that can be installed in enterprise environments in a variety of different modes. It's designed to work transparently, checking Web activity at the gateway to avoid impacting network performance.

Aladdin Knowledge Systems eSafe v6.2 Proxy

Starts at $3,500

Flexible Web-security application for any enterprise network
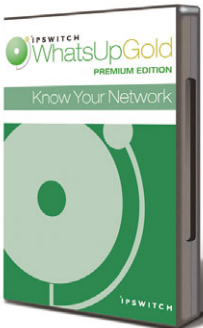
(800) 677-1587

www.aladdin.com

Network Monitoring For SMEs & Beyond

Ipswitch's WhatsUp Gold Version 12 Gets Bigger & Better

BUSINESSES GROW CONSTANTLY, and networks must adjust to changing demands. Yet, as important as it is for a network to be able to scale upward, every company has to start somewhere. Having network management tools that can grow with a business from a small enterprise to a large one is valuable.

WhatsUp Gold from Ipswitch has been addressing this issue for over 15 years. The most recent version, WhatsUp Gold 12, has added several new features, including Split Second Graphs, which allow administrators to more quickly identify any problems and take proactive steps toward resolving issues—in seconds, not minutes. Additionally, real-time data can be added to full reports to give administrators a more complete picture of network health, which is continuously updated as real-time information flows in.

Through the various workspace views, administrators can see current device usage data via the InstantInfo pop-ups feature just by hovering the cursor over device or network interface links. Also new are the Web Task Manager and Web Performance Monitor, Web-based tools that extend the functionality of Windows tools to every user.

WhatsUp Gold is designed to provide easy-to-use management and monitoring interfaces, transparent upgrade paths, and low total cost of ownership. With a bevy of plug-ins on the way, WhatsUp Gold can be expanded to suit the needs of any enterprise.

Ipswitch WhatsUp Gold v12

Standard: $1,995
Premium: $2,595
Distributed: $3,095
MSP: $2,790

Network monitoring software for any size enterprise

(800) 793-4825

www.whatsupgold.com

NETWORKING & VPN   JUNE 20, 2008

Virtualize Your Applications

Ceedo Enterprise Lets You Access Applications From Anywhere
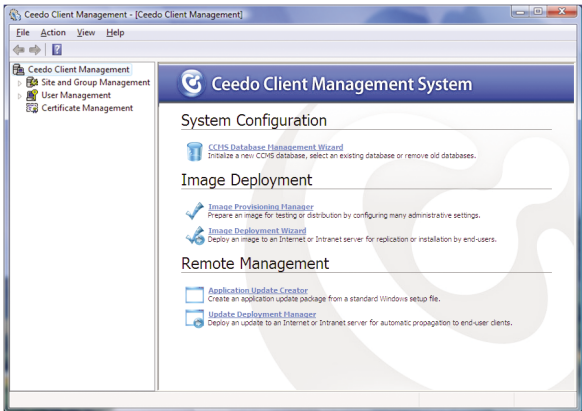
WHEN TRAVELING PROFESSIONALS are out on the road, it's important to not only have access to important files, but to critical applications, as well. With Ceedo Enterprise, road warriors can have access to both files and applications while leaving their laptops at home. Ceedo Enterprise is an application virtualization tool that can store entire work environments on a USB hard drive or flash drive for light travel.

Ceedo Enterprise separates the applications, application settings, and data from a computer's operating system but still allows the applications to communicate with the operating system. With these features, Ceedo Enterprise offers application portability, remote management, business continuity, and disaster recovery. In addition, Ceedo Enterprise offers users the ability to customize their workspace through their own applications and plug-ins. This process does not require administrator involvement, the workspace is separate from the computer, and the installation of applications onto a Ceedo workspace can be done without packaging.

With Ceedo Enterprise, IT managers can control enterprise applications, install new software, and update user files right away from a remote location. Ceedo can be installed on a USB device in order for installed applications to become portable for use on any PC running Windows 2000/XP/Vista, or it can be deployed in real time to a PC from a network or from the Web.

Ceedo Enterprise

$89 per seat (perpetual license)

Creates a virtual work environment that offers application portability, remote management, business continuity, and disaster recovery

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Secure Mobile Computing

Dolphin 7600 Now Includes GSM Wireless Technology & Windows Mobile 6

MOBILITY IS A MUST for business professionals. To access important data at any time is invaluable, which is why Honeywell Imaging and Mobility equipped its Dolphin 7600 Mobile Computer with GSM wireless technology and Microsoft's Windows Mobile 6.

With GSM wireless technology, the Dolphin 7600 allows users to stay connected no matter where they are. Wireless Full Area Networking, combined with Bluetooth, 802.11, and GSM/GPRS EDGE, enables real-time data exchange and voice communications onsite or offsite.

The addition of Windows Mobile 6 enables users to be productive while they're traveling, with connections to email, calendars, and contacts. Windows Mobile 6 also has the ability to read and create Word and Excel files, as well as view PowerPoint presentations. The familiarity of a Windows operating system makes mobile computing simple and intuitive.

The Dolphin 7600 uses a 2.8-inch VGA color display for both viewing and touchscreen use. Its backlit number and letter keypad is strategically arranged to enable one-handed operation. The Dolphin 7600's small, ergonomic design and durable construction is useful in both field and onsite operation.

In addition to its new features, the Dolphin 7600 Mobile Computer is integrated with Adaptus Imaging Technology 5.0, which allows users to capture a wide array of data such as barcodes, digital images, and signatures. This feature is especially useful for retail, parcel and postal delivery, field services, and task management applications.

Honeywell Dolphin 7600 Mobile Computer

Handheld mobile computer equipped with GSM wireless technology and Windows Mobile 6

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Be Involved In "Making Things Happen"

Entertaining Guide Takes Practical Approach To Project Management

by Joseph Pasquini

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THE CORE PRINCIPLES of project management thread their way through virtually every technology initiative. Major endeavors are fraught with risks screaming to be properly mitigated and explicit deadlines demanding to be met. It is the role of the project manager to bring these types of IT initiatives to a winning conclusion.

Anyone Can Manage A Project

In "Making Things Happen: Mastering Project Management," author and veteran software and Web development manager Scott Berkun presents his case that just about anyone can be a project manager within his or her own sphere of influence. In many IT operations, it's not at all unusual for the person actually leading a given project to not possess an official project manager title. Berkun observes that everyone, no matter his title or position within his organization, manages projects of all shapes and sizes as part of his daily work load. Job titles and administrative methods are irrelevant. What are important, however, are results.

"Making Things Happen" is not a reference book. Unlike the typical project management tome built around formalized project management principles and documentation, Berkun takes a conversational approach toward simply getting things done.

Play It Again, Sam

If you think you may have heard of some of Berkun's concepts before, you're probably right. "Making Things Happen" is an updated version of the author's best-selling book first published as "The Art of Project Management." This revised edition includes more than 120 practice exercises, as well as a discussion guide.

The book is broken into three parts: Plans, Skills, and Management. Plans addresses scheduling drawbacks, developing and refining project vision, brainstorming, and prototyping. Skills focuses on the benefits of writing good specifications to simplify a project. This section of the book also speaks to making decisions, communicating effectively,

Making Things Happen: Mastering Project Management

Author: Scott Berkun
Publisher: O'Reilly
Price: $39.99
Format: Paperback, 408 pages

building relationships, embracing responsibility, and avoiding annoyances. Management covers leadership issues and end-game strategies. It also tackles the reality of politics and the role that it will inevitably play during a project's life cycle.

Learning From History

Berkun has a passion for studying history to determine how others have faced and solved the central challenges posed during the course of their projects. From the construction of the pyramids to the exploration of space, mankind has demonstrated a penchant for project management. According to Berkun, we can learn from this historical perspective by examining what others have done in circumstances often different from our own.

While we might be inclined to only emulate the success stories seen through a historical perspective, Berkun contends that we should also learn from failure and even embrace it as a powerful learning tool. Failure forces us to be more attentive and to re-examine our assumptions. Real knowledge from real failure serves as a persuasive mechanism for advancing a project.

Berkun worked for 10 years at Microsoft on projects including Internet Explorer, MSN, and the Windows operating system. His personal account of the difficult lessons he learned during the course of his professional career comfortably translates into practical tidbits of priceless guidance interspersed with wit and honesty. **P**

KEY CONCEPTS

▶ **Create distinctive value.** According to author Scott Berkun, dynamic project managers positively impact their team in ways few others can. What a project manager brings to the table, good or bad, is quickly contagious to the rest of the project team. The more positive a project manager, the more likely the project will succeed.

▶ **Communication is crucial.** More than any other team member, project managers are most responsible for ensuring effective communications. According to Berkun, the value of talking to people within the workplace cannot be understated. Some may think of this as socializing. In reality, however, Berkun views conversation as an investment in people and information. Likewise, it is also a means to nurture relationships, build trust, and ultimately reach consensus.

▶ **Don't annoy.** People get annoyed for many reasons. Often, it's when they feel like their time has been wasted by unnecessary emails or unproductive meetings. Nonannoying email is concise and actionable; successful meetings are facilitated and involve preparation.

Industrial PoE Splitter

Advantech's EKI-2701PSI Provides Power To Difficult Situations

PoE (POWER OVER ETHERNET; also known as IEEE 802.3af) has proven itself in commercial and enterprise applications over the past several years. Using the unused wires in a 10/100BaseT cable, or by overlaying power on the data connections, PoE supplies 15.4W of power at 48VDC.

PoE is useful for powering network devices and equipment where it is inconvenient, expensive, or infeasible to supply power separately. Connected between a standard Ethernet device and a PoE-powered connection, the Advantech EKI-2701PSI operates as a splitter, separating the PoE connection into a standard RJ45 Ethernet port and a removable screw terminal block capable of supplying nearly 13W at 24VDC.

Packaged in a thin DIN-rail mount chassis, the Advantech EKI-2701PSI is ideal where panel space is limited. It supports both standard 10/100BaseT and Gigabit 1000BaseT connections. It is also ruggedized for demanding industrial applications, with 4,000 VDC Ethernet ESD protection, power line surge (EFT) protection of 3,000 VDC, power isolation, and output power short circuit protection. For maximum uptime in unattended and remote locations, the EKI-2701PSI features an extended operating temperature range of -40 to 75° C.

The EKI-2701PSI splitter is an ideal means to gain the benefits of PoE with standard Ethernet devices in harsh industrial environments. For applications with two or more devices requiring a PoE power source, the EKI-2525P 5-port industrial Ethernet switch is a great match.

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Backup, Recovery & Disaster Protection

Sonasoft's SonaSafe Suite Beefs Up The Defense

PROTECTING DATA IS ONE of the most important things a company can do. Sonasoft's newest version of its SonaSafe Suite for Microsoft Exchange, SQL, and Windows Servers improves upon its ability to facilitate data backup and recovery.

SonaSafe Suite is designed for high availability by continuously updating data that was retrieved from the primary system to the redundant, standby servers. The redundant servers themselves are designed to immediately take over for the primary system in the event of a disaster.

SonaSafe Suite supports SQL 7.0, 2000, and 2005; Exchange 2000, 2003, and 2007; and Windows NT/2000/2003/XP. Backup and recovery options are also available via a bootable CD and can be performed on systems such as VMware and Microsoft Virtual Server. The suite is controlled through a Web-based interface.

New features of the suite include dynamic mailbox backup, which makes larger amounts of mailbox storage possible on an Exchange server. One complete backup is made, so only incremental backups need to be performed in the future, thus eliminating costs. Data retrieval is possible with a few mouse clicks.

Other new features include customizable ports and enhanced replication and recovery capabilities. Customers can now define and open ports for backup and restore functions, which is more secure than doing so on more commonly used ports. File level backup and recovery options are also increased.
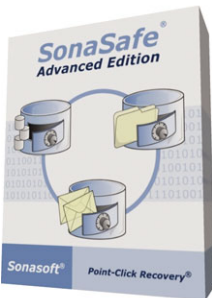
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Are You Ready For Cloud Storage?

Take Notice But Tread Carefully

by Bruce Gain

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CLOUD STORAGE, as well as Web 2.0 and cloud computing, has generated a significant amount of buzz during the past few months. But often seen as hype, many admins may liken cloud storage as the latest

The Feature Checklist

The importance of due diligence when selecting a cloud storage provider cannot be emphasized enough. At the very least, a vendor should offer the following services:

- Replication (that is, a backup of the backup)
- A disaster recovery policy that you can test
- End-to-end encryption of all data going out of the enterprise
- File compression
- Virtualization
- Communication about where your data is located
- Capacity-optimized backups
- The ability to centrally control data from multiple offices

SOURCE: ROBObak

new offering that vendors claim they need but not something they necessarily want just yet. And truth be told, the rollout of cloud storage, as well as cloud computing, remains in the nascent stage.

"The market has to develop, and the people delivering solutions to the space have to prove themselves," says George Crump, analyst and founder of Storage Switzerland (www.storage-switzerland.com).

Cloud computing also often means various things, as some vendors and proponents tout their services as authentic cloud storage tools, which might instead fall under the generic online storage category.

The definition that generally applies is that cloud storage is a way for enterprises to rely on a third party for their storage needs without having to build and manage their own data storage infrastructure. Unlike online storage, in which data is mostly uploaded to a service provider's servers with little if any extra management features, credible cloud storage vendors should offer a suite of applications. Legitimate offerings should include virtualization, capacity-optimized backups, and other features that would otherwise comprise robust onsite storage solutions. Cloud storage should also offer a lower-cost alternative and easier expandability compared to investing in an in-house infrastructure. So the potential benefits to small to midsized enterprises are significant, especially in the long term.

"A lot of people think [some vendors] are saying everything is going to move to the cloud right away," says Jonathan Buckley, chief marketing officer for Nirvanix (www.nirvanix.com). "But no, that is not going to happen immediately. That may be the case in the long term, but right now, there are only certain things that are well-suited for [cloud storage]."

Caveat Emptor

SMEs without the requisite in-house know-how to manage a complex and robust storage infrastructure could one day rely on cloud storage for their complete storage needs. Besides requiring less in-house staff, the solution can represent one-fifth to one-sixth the cost of buying and setting up your own network-attached storage, Buckley says. Unaware that their data is mainly backed up and managed offsite over the Internet to a remote location, users would likely not notice a difference whether they were to access their stored data over the cloud or from a server sitting just a few feet away in the office data center.

But before you hand over the management of your storage needs, tread very, very carefully. The main consideration when mulling different offerings is that an enterprise needs to retain total control of its data, even though a third party is managing the storage applications.

Other things to watch out for include making sure that data backed up to the cloud should be end-to-end encrypted, with only the enterprise's admins able to decrypt it—and not the third-party provider. You should know exactly where your data sits geographically as opposed to letting a third party host it "on the cloud somewhere" on servers in locations that are kept secret. The service provider should also offer deduplication, backup rules you set, and any other capabilities your enterprise would have it if it were to keep storage in-house, notes Adam Waxman, vice president of client services at ROBObak (www.robobak.com).

"[A cloud storage provider] should offer credible products that have real development teams that are focused on not just backing up one thing but many things. They should really spend the time to enact what should really be industry standards like you would do at any [in-house] data center," Waxman says. "It should be like [traditional] data centers, except that you deploy it remotely."

Your legal department will inevitably lecture you about never signing important contracts or other service agreements until qualified counsel studies the fine print. Given the compliance and other legal concerns about how your enterprise's data is backed up and stored, cloud storage contracts merit special attention by qualified legal counsel. The possibilities of what could go wrong are vast. What if your cloud storage provider goes out of business and your data sits on servers that are about to be foreclosed on by a bank? If there is a security breach, what happens then? Ultimately, how is your liability risk reflected in the contract between your enterprise and the storage provider?

"There are huge, huge repercussions. Let's say you're a small law firm and you happen to have a public company or a private company as a client, and you're using a service that's not encrypted," Waxman

Changing Your SME's Email Platform

Advice On When & How To Transition To A New System

by Curt Harler

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WHEN THE TIME COMES to change email systems, it is best to approach the process in a logical, linear fashion. Be sure the old system no longer is meeting corporate needs, spend a lot of time planning the transition, and use the changeover as an impetus for cleaning up other email issues.

Reasons To Switch

There is no question that changing email platforms is a major and wrenching decision.

"Email used to be POP3 and mailboxes. But email isn't just email anymore," says David Poellhuber, president of ZEROSPAM (www.zerospam.ca) in Montreal, Canada. It involves all aspects of the workplace.

"Making a change in email is huge. It touches everyone in the company," notes Greg Arnette, CTO at Sonian (www.sonian .net). "There are sizable costs in training, plus the cost of migration." Yet there are valid reasons to move on. "Weak technology or outdated platforms are one reason for changing email systems," says Arnette. "There are a lot of legacy systems which no longer provide support or meet the compliance needs of today's world."

Poellhuber notes, "Many SMEs have only basic email but are moving to groupware solutions. Email is the No. 1 mission-critical application, 24/7. It is interwoven into all business processes. Any failure of email puts all of your business processes in danger."

Some systems fail to meet the storage volume requirements users expect. A company's current email system may be missing interfaces to key systems such as ERP, or it may lack plug-ins for CRM.

Sometimes change is predicated on a merger or acquisition. Other times, a new executive comes into town and wants to use a system he used at another location. "They want something they are comfortable with," Arnette says.

Moving Ahead

Once a small to midsized enterprise makes the decision to change systems, Poellhuber advises looking at an email system from a holistic viewpoint. "The first decision is the system architecture," he says. Here, an SME must decide whether to design a system itself or outsource the job. If it chooses the latter, it should determine whether it will be hosted or software as a service. "You want your global messaging strategy worked out," Poellhuber notes. "This requires advanced planning."

In the ideal world, Arnette says, new email software would reside on brand-new hardware. A consultant would architect the new system, which would run in parallel with the legacy system in a pilot program

> Be sure the old system no longer is meeting corporate needs, spend a lot of time planning the transition, and use the changeover as an impetus for cleaning up other email issues.

to iron out kinks. Then a gateway would tie the new system to the old during migration.

"Forget about doing the job over a weekend," Arnette says. Even for a small SME, it would be difficult to pull off. "Typically, it is best to change department by department or workgroup by workgroup. Remember, you have to cross-pollinate everything with other systems."

Poellhuber says SMEs should plan to have consultants and other technical experts available throughout the process.

The number of physical locations involved is a factor to consider. Arnette says that an SME with 500 to 1,000 workers and a couple of locations probably faces a six- to eight-week effort. "A lot depends on how flexible the workforce is," he says.

Sometimes a proposed change does not happen. The big reasons, Arnette says, are cost and practicality of changing the system.

Poellhuber agrees that such a change is a multiweek process. "But we're not talking man-years," he says. "Most of the planning and testing should be done offline. Then, if a switchover fails, you can go back to the original system." He says that email is one of the easiest services to roll back.

Poellhuber notes that there is debate on open-source vs. proprietary software. SMEs gravitate to known systems such as Microsoft Exchange (www.microsoft.com) or IBM's Lotus Notes (www.ibm.com), he says. "But SMEs can get open-source programs in a hosted form, so they can have the same email resources as Fortune 500 companies," he notes.

But in a merger and acquisition scenario, the Microsoft platform tends to win out, Arnette says.

Some SMEs solve the problem by treating email like a utility and farming it out to trusted vendors in the network cloud. Arnette says this is a trend at SMEs in the 500- to 1,000-seat range, where they feel in-house talent is better spent on key tasks than on maintaining utilities.

Whatever the process the SME chooses, it should be sure all of the ancillary products—firewall, antivirus, and spam protection—are state of the art. Poellhuber reminds SMEs to keep mobile users in mind, too. "Any switch has to be transparent to the iPhone, BlackBerry, and Treo users," he says.

The New Relationship

"Email continuity is the key question to resolve when moving ahead," Poellhuber says. "Know the risks you want to protect against: blackouts, brownouts, ISP failure, security threats. Decide on your perimeter protection and firewall, virus, and spam issues. This gets back to having your architecture well defined."

Involve all stakeholders as early as possible. "Get representatives of the different nontechnical factions involved early to make the migration successful," Arnette says. User groups, human resources, legal, and compliance should be part of the buy-in process.

Poellhuber says that, in his experience, IT usually needs little input beyond legal's insights into contracts and SLAs.

Turning up a new email system is the perfect time to implement new policies, Arnette notes. "Most people have a strong desire to start with a clean database. This is the time to enact new storage limits and duration policies." He adds, "Archive the old information and start fresh." It's a good idea to impose a 180-day or 500MB limit on storage with the new system.

Poellhuber would redefine maximum message size, so people do not send movies and MP3s on the company network. He says, "This is the time to redefine accepted policies." ▣

Get The CIA Involved

If you are switching email systems, involve the CIA. "The CIA is Confidentiality, Integrity, and Availability," says David Poellhuber, president of ZEROSPAM (www.zerospam.ca). "With email, the 'C' usually is not a problem. However, 'I' is."

Integrity includes making sure the email system is stable and secure. Email is an established application, but there are people who are determined to breach the system's integrity.

"Determine early on how important survivability is," Poellhuber says. Availability is important, too. "Be sure the email is up and running properly . . . or that you know about problems beforehand. The worst thing is to have a user call and say, 'My email is down,' and IT doesn't know about it."

Poellhuber recommends enterprises determine whether all email will go through one gateway. "This is a good idea for an SME. It reduces domain spoofing, for example," he says.

Can & Should IT Staff Telework?

Weighing The Pros & Cons

by Julie Sartain

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ACCORDING TO a recent Sun Microsystems study on eco responsibility, networks today consume more than 100 billion kilowatts of electricity and generate about $7.2 billion a year in utility bills. This same study notes that the employees who teleworked just 2.5 days a week saved $1,700 in gas and maintenance on their vehicles plus an average of 2.5 weeks of commuting time annually (from the Sun Microsystems' Open Work Energy Meas-urement Project, an internal study that compares energy usage).

The U.S. Department of Labor's Bureau of Labor Statistics reports that if employees teleworked just twice a week, the United States could save 9.7 billion gallons of gasoline; that's $38.2 billion a year. If gas prices continue to rise, such as $6 a gallon (or more), teleworking may be the only responsible (and affordable) option for many thousands of employees.

Should IT Staff Telework?

With cell phones, laptops, teleconferencing, the Internet, and a plethora of new and ever-changing technologies, telecommuting makes perfect sense for many hundreds of the various jobs within today's organizations. But what about the IT jobs? Should the IT staff of these organizations telework, as well?

"These days, I would say that working from home for IT staff is not so much a choice but a requirement," says Andrew Cho, director of IT infrastructure at Belkin (www.belkin.com). "As IT is a key support function, members are often called upon to work at a moment's notice and at odd hours. IT workers need the ability to work effectively from almost anywhere, whether at home, on the road, or any other remote location. With fairly ubiquitous access to the Internet, VPNs, and VoIP, most, if not all, IT services can be delivered to IT staff wherever they may be."

Stanley Chan, product manager at Sans Digital (626/322-3868; www.sansdigital.com), says, "Allowing IT staff to work at home prevents the occurrence of prolonged, unsolved problems. Most IT equipment now has email alerts. When a situation occurs, the IT worker can take care of it right away. As a result, this reduces the downtime, and the system is more likely to return to normal when the next working day begins, therefore not interfering with normal working hours."

"We have software programmers and IT staff that work outside of our offices," says Calvin Nicholson, director of product marketing at Server Technology (www.servertech.com). "If they can do their job remotely and do it well, then we don't have a problem with it."

Working from home improves work efficiency, notes Chan. IT troubles can occur at any time of the day, not just during working hours. "Telecommuting allows the IT staff to efficiently fix errors as soon as they occur."

For his part, Ricardo Reyes, vice president of technical sales and marketing at Areca Technology (www.areca.us), believes teleworking's success depends on the IT level of the company's staff.

"We strive to provide the highest level of service to our customers, and I can't see that happening unless you can provide your IT staff with all the essential hardware and software resources available at work. If our IT staff were allowed to work from home, it would limit them from resources in our lab and thereby limit the level of support we can provide to our customers," he says.

Teleworking's Disadvantages

According to Sans Digital's Chan, possible security risks are of definite concern when it comes to teleworking. "Allowing IT staff to work outside of the office means giving outsiders access to the internal network. An opening in the firewall means there's a greater potential for access to the database from hackers and malware."

Mike Montecillo, security and risk management analyst at Enterprise Management Associates (www.enterprisemanagement.com), concurs, saying, "Security is the biggest disadvantage of teleworking. When IT staff work from home, even if using company equipment and accessing the company through a VPN, they are still connecting through a home network. These networks are not managed and, therefore, not secure."

Montecillo adds that home networks are not only vulnerable to malware and malicious attacks but also susceptible to hackers searching for private and confidential company information. Another problem for IT teleworkers, he says, is how to manage and control the company's systems remotely.

"Collaboration is another disadvantage. [It's] on a much smaller scale than security, but nonetheless an important consideration," says Montecillo. "The social environment in the workplace is unique to each company. This culture cultivates creative thought—an exchange of ideas, processes, and communication that's not available from a lone workstation at home."

"Working at home can make it harder to collaborate," agrees Belkin's Cho. "Especially for management, it can be more difficult to supervise and/or manage without face-to-face interaction. Staff working at home may also be more easily distracted by nonwork-related events compared to working in the office."

The Bottom Line

The Sun Microsystems study reports that 25% of the IT budget is from the power consumed in the data centers. The Telework Exchange, a public-private partnership organization that focuses on the values of teleworking, surveyed 377 federal and private-sector employees and reported that 92% of these individuals could easily perform their jobs from home, but only 34% actually telework.

"The reality of teleworking is this," says JD Stratton, independent IT consultant at Stratton & Associates, "the benefits to employees won't change corporate behavior. The only way to effect real change is through the bottom line (dollars). If and when companies see a significant financial savings through telecommuting, policies will change. That's when teleworking will become the norm, rather than the exception." ▯

Gas & Time Savings Through Teleworking

From a gas- and time-saving perspective, teleworking can be very beneficial. According to the Telework Exchange, telecommuting can help workers save substantial amounts of money once spent on gas alone, not to mention time spent sitting in a car during the commute and the environmental impact of pounds of pollutants dispersed by cars.

In its research, Telework Exchange found that federal employees annually spend an average of 245 hours of their lives commuting and would get back 98 of those hours by teleworking two days per week. Telework Exchange also estimates that at an average gasoline cost of $3 per gallon, the commuters studied spent $138.80 per month on gasoline, a figure cut by $55.52 by teleworking two days per week. With gas prices now hovering around the $4 mark, those numbers would increase even further.

Are You Ready For Cloud Storage?

says. "Or sure, there might be things in the upload process that are going to be safe and secure, but how safe are they, really?"

But even after a cloud storage provider does meet a strict set of service-level and liability criteria, enterprises may wish to begin handing over some of their less mission-critical storage management tasks to a third party to test the waters. A good place to start might be using cloud storage for data archiving to replace less essential services that traditional online storage providers offer, Crump says.

"For archiving, generic online storage does not offer the retention aspect of storage. But the guy doing cloud storage should understand archives and should offer tools for which you can say, 'I want to keep those files in this form for 10 years,'" Crump says. "Online storage isn't bad, but if you can find a cloud storage provider who specializes in the retention component of the archive, then there may be value in that."

Who Needs It

The latency issue of having to access your data over the cloud, which really means through the Internet pipes, remains one of the most limiting factors for the application at this stage. So while enterprises should not think about uploading everything to the cloud just yet, certain kinds of enterprises and applications are better suited than others, Buckley says.

For example, storage applications where some latency is acceptable are better candidates for cloud storage than, say, a customer service firm's translational database, for which latency must be as close to zero as possible, Buckley says. On the other hand, media libraries and their content, which users access online over the Internet, are well-suited.
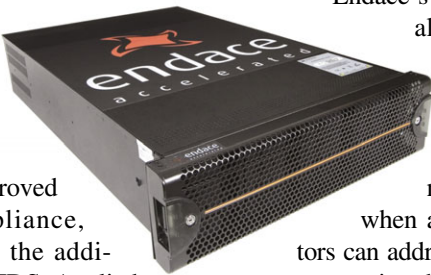
Buckley says, "A media content library with connections to content distribution networks like NBC.com works very well." ▯

Core-To-Edge Detection

Endace's NinjaProbe Adds Snort IDS Support & Data Mining Capabilities

MONITORING THE security of a network requires network administrators to make sense of a constant flow of information from a variety of fronts. Malicious threats and anomalies of all kinds must be recognized and dealt with handily, and administrators must rely on their equipment to help them keep the network safe. All of this puts more pressure on NIDS (network intrusion detection systems) to do their job well.

Endace has improved on its NIDS appliance, NinjaProbe, with the addition of 10G Snort IDS, Applied Watch Command Center Agent, and data mining capabilities. NinjaProbe is powered by Endace's DAG (Data Acquisition and Generation) technology. The new features are open-source and facilitate high-speed packet capture, intrusion detection, and analysis. They are designed to be easily deployable, powerful, and secure.

Endace's acquisition of Applied Watch allows NinjaProbe to integrate well with Snort IDS' management tools. NinjaProbe captures all incoming traffic to disk, from the edge of the network to the core, so that when a rule is triggered, administrators can address the problem and mine data concerning the event. And because the platform can operate on segments up to 10Gbps with continuous indexed rotary storage, analysts can collect and study data both before and after an alert.

The appliance's features can be managed remotely, including for Snort rule definition, download, and alerting, as well as data mining and platform configuration. Other features include traffic filtering and Netflow record generation, which facilitate data capture, performance management, traffic monitoring, and electronic surveillance to meet the full range of requirements.

Endace NinjaProbe

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SIX QUICK TIPS

Dealing With A Data Center Skills Shortage

Make The Most Of What You Have

by Elizabeth Millard

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IN SOME WAYS, addressing skill gaps can be a snap: Just throw money at the issue. After all, if an IT manager can add to head count by hiring employees with specialized knowledge such as security policy enforcement or power and cooling maintenance, there won't be a skills shortage.

Unfortunately, for most small to mid-sized enterprises, that option isn't very realistic in terms of budget or meeting long-term goals. Instead, one IT employee has to have a range of skills in order to tackle myriad issues, both technical and managerial. But filling skill gaps doesn't always require huge leaps, either; here are some tips for making the most of your employee pool.

Assess Your Gaps Realistically

The first step in dealing with a skills shortage is to clearly define what skills you need, notes Steve Trautman, developer of a peer mentoring system taught at HP, Intuit, Nike, and other companies and author of "Teach What You Know: A Practical Leader's Guide to Knowledge Transfer Using Peer Mentoring."

"Don't bother creating a list of general 'competencies' such as communication skills, planning skills, or analytical skills," he says. "That's far too vague." Instead, he suggests breaking the skills down into the actual work being done by each job role.

For example, rather than note that "server upgrade knowledge" is needed, make the skill specific, such as "can set up the OS on the server" or "can run and test the backup utility."

Take Inventory Of Employees

Once the assessment is completed, Trautman suggests that a data center manager create an inventory list, similar to listing the features and functions of a piece of technology or an application. Each employee can be given the list of skills created and check off what he already knows.

From there, employees can teach each other, Trautman says. This differs from mentorship because there are no hierarchical levels of junior and senior; rather, it creates a network of fellow students who pool their knowledge. What's most important with this system, Trautman says, is to make sure that it's not a casual endeavor.

"Provide them with clear expectations [and] tools to prepare, teach, and test their

> ## The first step in dealing with a skills shortage is to clearly define what skills you need.

'apprentices,' and you'll have a knowledge transfer machine methodically generating the most needed skills during the course of a regular work day."

Survey The Mentorship Opportunities

For SMEs that have a batch of new employees or younger staff members, classical forms of mentorship can be useful, notes Lee Kirby, vice president of Lee Technologies (www.leetechnologies.com).

"For companies that face budget constraints for training, they actually have a gold mine of resources for building skills in-house, and that's their own staff," says Kirby. "The most underrated and overlooked opportunity is an effective mentoring program."

He suggests that managers should inventory their staff and assess who could serve as a mentor to a fellow employee. Although the effort takes some time to match up senior and junior employees or to get other departments involved—for example, learning communication skills could pair an IT technician with a sales manager—Kirby believes it's worth the time: "It take some work, but in addition to the valuable learning experience, it becomes a great team builder, too."

Mix In Automation At Relevant Levels

Not all the skills needed in the data center need to be done by employees, believes Venkat Devraj, co-founder and CTO of Stratavia (www.stratavia.com).

The primary skills shortage being felt now are in the areas of "server and above," which includes servers, databases, and applications. The reason for the gaps is because at lower levels, such as network and storage, automatic tools have matured to the point where they're more stable and therefore more widely implemented.

"As a result, there are fewer admins in the typical data center focusing on areas below the server stack," Devraj says. "Conversely, the proximity of the database and applications to the user community, and the corresponding one-off customizations, results in more complexity and more people to manage."

But even with higher salaries being offered, good database and application specialists are hard to find, he adds. One way to bridge the skills shortage is to utilize automation tools that span the entire data center life cycle, from asset provisioning and maintenance to incident management and service request management.

These tools may come with an initial upfront cost that may feel like a budget breaker in some cases, but SMEs should do an assessment of the return on investment that may come from keeping headcount at current levels and freeing up IT employees from some data center tasks. They can also be valuable for allowing a company to

survive the transition from one IT manager to another—a situation that brings perhaps the greatest danger of skill gaps.

"These kinds of technologies enable senior-level admins to incorporate their best practices into the product platform as opposed to them carrying that knowledge in their heads," says Devraj. ▣

BONUS TIPS

■ **Ask employees to get creative.** Most IT staff members enjoy making education a life-long pursuit, and keeping them involved in deciding what they want to learn will pay off in enthusiasm and new knowledge areas. Self study through books, low-cost seminars, and other options can help them to stay sharp.

■ **Understand learning styles.** One employee may do better with an online course than in a computer lab, and another may be the opposite. Discovering the best way that people learn will save time and money because it will prevent cookie-cutter seminars that don't work for everyone.

Most Strategic Tip:

Keep Operations & Applications Separate

When determining skill sets and responsibilities in the operations group and the applications group, don't be tempted to mix the two in order to boost your overall skill base, cautions John Baschab, co-author of "The Executive's Guide to Information Technology."

"A disorganized IT department with competing roles and gaps in service coverage continually finds itself behind in project delivery and user satisfaction," he notes. SMEs in particular often mix the responsibilities of the application development team with those in charge of operations, and this leads to confused priorities, Baschab believes.

Minor tasks get added to the to-do lists for some developers, and those with operational issues may get enmeshed in production, leading both groups into daily firefighting that leaves no time for developing new capabilities.

Best Return On Investment:

Stay On Top Of Business Needs

Skill gaps occur in all departments of an organization, although IT tends to have the most demand for cutting-edge expertise thanks to changing technology. Even when this is the case, understanding business goals can help to anticipate gaps in the future, notes John Challenger, CEO of executive placement firm Challenger, Gray & Christmas (www.challengergray.com).

"Every business changes and grows over time, and different structures are put in place," he says. "What can happen, for example, is that a wave of younger people will come in with new ideas, and that creates fresh opportunities for changing a company's strategies."

Keeping on top of larger shifts within the SME in all departments can be achieved through regular all-department meetings, and an IT manager should think about how upcoming changes might put demands on the data center staff.

WHAT'S HAPPENING

Open-Source Solutions Provide Value

Optaros Fosters Best Practices For Global Collaborative Development

by Julie Sartain

• • •

COMPANIES SHOULD have the business agility and control of the applications they use, including the choice of what to use, what vendors to work with, and how they want their applications supported. Using open-source software, open standards, and an "assembly" approach can provide these benefits to customers.

This is the product philosophy of Optaros (www.optaros.com), a consulting firm that helps companies take advantage of the rapid changes driven by the Internet and then explore and leverage the recent developments of Internet software. This allows these companies to provide more value to their customers, suppliers, and employees.

Headquartered in Boston, Optaros designs and assembles solutions from loosely coupled software components into supported composite applications. "We believe that companies need to open up more and participate in the conversations and communities that the modern Internet enables," says Dave Gynn, senior director of tools and methodology at Optaros. "This involves interacting more directly with clients/users (possibly via blogs) or collaborating with external developers on individual pieces of software."

All About OForge

Optaros' current project is OForge, says Gynn, an integrated assembly environment that enables enterprise IT organizations to leverage the development practices of the open-source community. OForge enables iterative assembly of open-source components through a collaborative development approach that can span geographies and organizations. It's open-source software that users can download for free.

OForge is a collaborative team environment for groups working on assembling applications, notes Gynn. It helps enterprise IT teams implement the best practices for global, collaborative development that open-source project teams have demonstrated. OForge itself is an assembly of the tools that many open-source projects use today, which have been pulled together in the context of supporting enterprise IT.

"We initially developed OForge for ourselves," says Gynn. "As a globally distributed consulting firm, we needed a way to collaborate internally and with our clients on the applications we were assembling. Several of our clients were impressed with our tools and wanted to use them in-house."

Gynn adds, "We needed to make distributed teams work well, and we needed to provide transparency into our work process

for our clients." Optaros tackled those challenges by looking at the ways open-source projects could achieve great results with teams that never meet face-to-face.

Optaros' answer, OForge, was to assemble the top tools that open-source project teams use and then wrap them in the context of a consulting project or enterprise IT initiative. "We used Optaros' OptAM methodology to create that solution," says Gynn. "OptAM is our methodology, which brings together user-centered design principles and an assembly philosophy to rapidly create solutions." This involved analyzing users' tasks to create an intuitive interface that met the exact needs of its users. On the technical side, Optaros identified the components that could best be assembled to meet those goals.

How It Works

Gynn explains that when the company plans its next release, the team pulls together information from multiple sources. "We

have a steering committee made up of a number of our key users who provide input on their top requests. We are also actively engaged in a number of open-source communities, which makes us aware of initiatives being done by others outside our company," he says.

Other developers in the open-source community are usually discussing and developing features that Optaros users request. And, when not, the team runs all implementation ideas by other developers to find out what they have tried before. After prioritizing the next set of features, Optaros works with other developers addressing the same issues.

This provides an advantage on development, and the Optaros team gains the benefit of lessons that other developers in the open-source community have learned. "We make any of our nonproprietary work available publicly, which allows others to provide us with feedback and suggest ideas our own users have not considered," says Gynn.

For example, he says, look at the defect ticket workflows in the OForge issue tracker. Optaros' teams were asking for more advanced workflows than its core issue tracker enabled. "We knew that the next release of the software would have some of these features but not all, and we were testing the unreleased code in our development environment," notes Gynn. "We were able to use the unreleased code plus some of our own enhancements to meet the specific needs of one of our project teams." These enhancements were contributed back to the core product, which ensures that the product stays in sync with future changes.

On any given day, a developer on the team can work with the Optaros' project teams to provide support, ask and answer questions in forums and/or on IRC (Internet Relay Chat) regarding the work in progress, and develop enhancements to the current system.

"Specifically with OForge, we primarily compete with tools brought together by in-house teams," says Gynn. "For example, it is not too difficult to download and install a wiki, source code management server, and an issue tracker on a server. What OForge brings to the solution is the integration of the tools, the enterprise IT context (such as security, reporting, backups, etc.), and the ongoing maintenance of the overall solution."

Optaros' target audience is enterprise IT organizations looking to engage their business partners in more rapid, user-centered application development for improved business performance, adds Gynn.

Future Plans

Gynn says OForge is a continually evolving product that grows based on the growth of the underlying components and follows the needs of the users. "While many claim this, by using actively developed open-source components in our assembled solution, we get the R&D benefit of a team much larger than our own," he says. There's a lot of work developing around distributed source code management systems. Gynn notes, "As this work matures and our users begin to ask for these features, we will make it part of the assembled OForge solution." ▣

THREE QUESTIONS

Remote Asset Tracking & Data Security

Absolute Software Offers Peace Of Mind For Laptop Owners

by Tim Warner

HEADQUARTERED IN Vancouver, British Columbia, Absolute Software provides computer theft recovery, data protection, and secure asset tracking solutions to individuals and organizations of all sizes. Stephen Midgley, senior director of global marketing at Absolute Software (604/730-9851; www.absolute.com), sheds some light on how Absolute Software's products and services help small to medium-sized enterprises address the most significant IT issues today.

■ What are the biggest IT-related issues facing today's small to midsized enterprise?

"In order to compete, small and midsized enterprises need the same IT solutions as large enterprises," says Midgley. "However, they are not

able to afford the IT infrastructure that most traditional solutions require."

According to Midgley, hardware and software costs can often put SMEs in a financial pinch. "Infrastructure investment, such as servers and resources to maintain those servers, can immediately use up small and midsized enterprises' budgets," he says.

■ What should *Processor* readers know about your company's products?

Absolute Software's Computrace solutions form the core of the company's product offerings. "The software-based Computrace Agent is embedded in the firmware of computers from the world's leading computer manufacturers," says Midgley.

Specifically, Computrace is a subscription-based service that individuals or companies can purchase to track their laptop computers in the event of theft. Midgley says, "Access to one of Absolute's IT asset management, computer theft recovery, and remote data protection solutions is typically activated by customers when they purchase a subscription to Computrace with terms ranging from one to four years."

According to Midgley, Absolute's solutions offer unique capabilities that enable users to:

- Track and effectively recover lost or stolen computers
- Remotely delete sensitive information from missing computers
- Inventory computers in the field that are disconnected from the LAN
- Deliver laptop security despite end-user apathy or negligence
- Remotely manage software and hardware inventories

"When a computer equipped with Computrace is reported stolen, Computrace sends a silent signal over the Internet to the Absolute Monitoring Center," says Midgley. "At that time, the Absolute Theft Recovery Team is able to deploy Absolute's recovery tools and conduct an investigation in order to obtain critical details including location and unauthorized user information. The Theft Recovery Team then coordinates with local law enforcement for recovery of the stolen machine."

According to Absolute Software, the Absolute Theft Recovery Team recovers an average of 50 laptops per week.

■ What makes your company unique?

"Absolute Software's Computrace is delivered as a software as a service (SaaS) solution," says Midgley. "Most IT asset management solutions require that you invest in expensive infrastructure, but with Computrace, all that an IT manager needs is to have the Computrace Agent installed on the organization's machines and a browser to use the Computrace Customer Center to manage them."

Midgley continues, "What really makes Absolute's Computrace unique is that IT managers can keep track and locate their machines even when they're off the LAN. That's because Computrace is also a theft recovery and remote data delete solution." Remote data delete is also known as a "poison pill" approach to protecting company-confidential data in the event of theft.

"Absolute's Computrace is also backed by the Absolute Theft Recovery Team that will locate a stolen computer, use proprietary tools to gather evidence from the computer, and work with law enforcement to recover it," says Midgley. "The combination of Absolute's remote IT asset management, data delete, and theft recovery services are really what set us apart."

NX-9000 Sets The Standard For Scalability

Industry's First Gigabit WAN Acceleration Appliance

SILVER PEAK SYSTEMS' NX-9000 is the newest member of the company's NX family of appliances. The NX-9000 is the industry's first Gigabit WAN acceleration product, raising the bar for WAN performance and scale.

The NX-9000 supports up to 4Gbps of bidirectional LAN-side traffic and 1Gbps of bidirectional WAN-side traffic, with 8TB of local data store available for WAN deduplication. The newest Silver Peak appliance delivers up to 10 times the real-time throughput of competitive offerings.

The NX-9000 also includes two 10Gbps interfaces and four 1Gbps interfaces with EtherChannel bonding for physical connectivity between Silver Peak appliances and network elements, which is required for deployment in data center environments. As more hosts turn to multi-Gbps interfaces, the NX-9000 has the capacity required to support the corresponding growth in data volumes.

The NX-9000 is ideal for high-volume data environments and supports more than 256,000 simultaneous TCP flows. It optimizes all enterprise applications, including TCP traffic, real-time UDP traffic, latency sensitive traffic, and applications with dynamic data formats. Plus, NX appliances ensure that data is always secure, at rest and across the WAN.

The NX-9000 utilizes the following advanced optimization technologies to improve WAN bandwidth efficiency and accelerate application performance:

- Network Memory: Works on latency sensitive traffic and both TCP and non-TCP applications.
- Network Acceleration: Employs techniques that minimize latency caused by TCP and other chatty protocols.
- Network Integrity: Silver Peak is the only WAN optimization vendor to address lost and out-of-order packets in real time using adaptive FEC (Forward Error Correction) and POC (Packet Order Correction).

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Alleviate Endpoint Virtualization Stress

Neocleus' Trusted Edge Provides Simple, Secure Endpoint Solution

AS PROFESSIONALS BECOME more mobile, there is an increased need to keep these employees securely in touch with company resources. But maintaining a virtual connection that is both secure and reliable can be difficult—especially because organizations cannot control the security of an endpoint operated by a customer or employee.

For this reason, Neocleus has launched Trusted Edge, which is designed to provide organizations with a program that connects customers and employees to corporate resources from anywhere in the world, regardless of the state of security. Trusted Edge will address issues that arise when managing and safely deploying applications, data, and services.

Trusted Edge implements a new Type 1, bare-metal hypervisor and a separate virtual trusted environment outside of Windows provided by new security plan and IT management framework. When putting Trusted Edge into operation, desktops will not need to be rebuilt, decreasing end-user downtime and costs. Trusted Edge can run other Windows-based applications upon customer demand and supports RDP, Citrix ICA, and Web interfaces. Authentication and configuration controls offer an easily managed virtual endpoint environment, creating a win-win situation for both IT personnel and users.
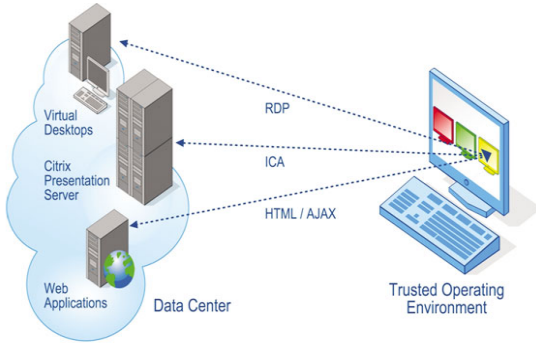
Trusted Edge not only provides customers and employees with the flexibility of accessing company resources from anywhere, it also has continuously operating real-time remote confirmation of virtualized environment reliability.

Neocleus Trusted Edge

Base-level user licenses start at $150 per user

Helps IT personnel, customers, and employees manage issues with endpoint virtualization

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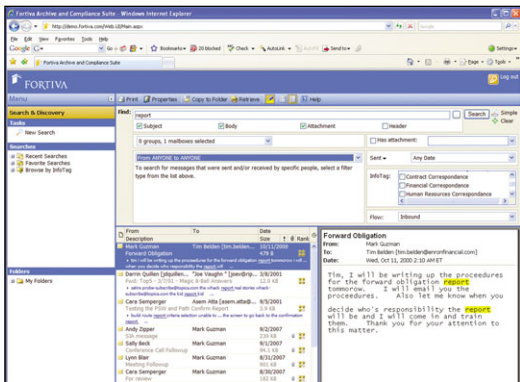
The Fortiva Archiving Suite allows you to easily search all archived messages, including attachments, right from Outlook or any web browser

THE MAJORITY OF a company's business-critical data is stored in email; data that can impact revenue, business decisions, corporate reputations, and end-user productivity. With all this at stake, businesses need to ensure that email is securely stored and easily accessed.

Fortiva Archiving Suite gives businesses a secure way to store and access an unlimited amount of historical email in real time without overloading the Exchange server. Fortiva also offers full preparation for legal discovery and provides easy compliance with regulatory rules. The policy-driven system also ensures consistent retention.

Fortiva Archiving Suite automatically captures and indexes all internal and external communications for redundant storage offsite. Users can easily access data within Outlook or a Web browser with guaranteed search performance, resulting in less need to store historical data within the mail server. Fortiva also guarantees data privacy through its DoubleBlind Encryption technology.

As a SaaS solution, Fortiva can be up and running in days, with no up-front capital costs and minimal planning. Fortiva takes care of everything from storage to security, so the archive can be easily managed by existing messaging staff.

Fortiva Archiving Suite

Starts at $1.01 per user, per month for 1,000 users

Email archiving system that lets companies manage their storage, comply with federal regulations, and meet eDiscovery requests

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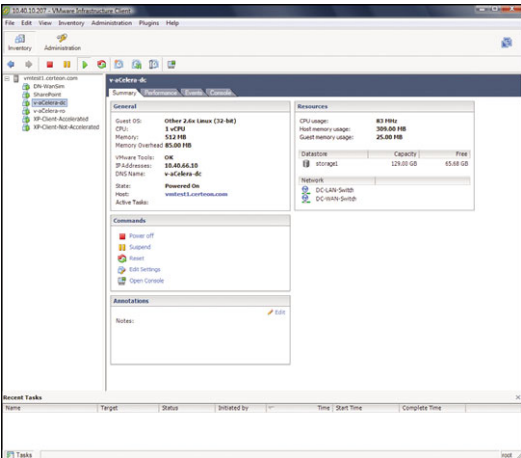
With the ability to run on any standard x86 system, aCelera Virtual Appliance software can share resources with the rest of your computing infrastructure.

WITH CERTEON'S ACELERA Virtual Appliance software, you can apply the advantages of virtualization to application acceleration without a reduction in application response time. The aCelera Virtual Appliance software delivers up to a 95% reduction in application response time for applications being accessed across the WAN. The software runs on standard x86 hardware in one or more virtual machines, so companies can mix and match application acceleration solutions for virtualized and nonvirtualized environments.

aCelera Virtual Appliances accelerate all network traffic and are optimized to accelerate remote access to specific applications, including Microsoft Office, Microsoft Office SharePoint Server, EMC Documentum eRoom, and UGS Solid Edge. The Certeon aCelera software provides centralized provisioning and is integrated with VMware Virtual Center to enable IT managers to allocate and manage app performance resources wherever needed. This flexibility helps avoid the need for specialized devices at each end of a WAN connection. By adding more virtual machines, IT staff can increase the acceleration capacity as much as needed for specific times or days when application traffic is heavy.

IT managers can reduce their overhead costs by downloading and deploying the aCelera Virtual Appliance software for remote users to help reduce the amount of dedicated hardware in data centers and remote offices.

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